COMMISSION FOR UNIVERSITY EDUCATION

Quality: The Agenda

STATE OF UNIVERSITY EDUCATION IN KENYA

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Foreword

The Commission for University Education was established by an *Act of Parliament, the Universities Act No. 42 of 2012*, to regulate coordinate and assure quality in university education in Kenya. As a result of growth and expansion of the university sub-sector, the Commission was established to oversee, monitor and make better provisions for the advancement of quality university education in the country.

One of the key mandates of the Commission is to collect, disseminate and maintain data on university education besides promoting regulating quality research in both public and private universities in Kenya. Data and information is critical in bringing out issues, informing strategic operational and planning processes; as well forming the basis upon which new policies are formulated. We note as a Ministry that University education has been expanding rapidly since independence. In the past we have not been able to collect accurate data and information about the sector. We are happy that through this report, the country is getting the first ever status report about the University sector in Kenya. I want to laud the Commission, through the Planning, Research and Development Division for this momentous achievement.

The Ministry of Education and other stakeholders in the sector are committed to the provision and utilization of data.This is engendered through a data management framework that contributes towards improving policy formulation, planning, budgeting, decision-making and instituting program interventions. This will enhance the general performance of the sector and provide an opportunity for the progress made towards achieving the country's development objectives as set out in the Medium-term Plan of 2013-2017; the National Education Sector Plan and the Strategic Plan 2013 – 2018; the national development strategies in Vision 2030 and the Constitution of Kenya, 2010.

This "*State of University Education in Kenya*" publication has come at the right time. It is comprehensive and has provided data on the most critical areas of enrolment, staffing, graduation trends and financing - which are very critical to the Ministry of Education.

I would like to assure all education stakeholders that the Ministry is committed to institutionalizing and automating data collection in the country. I am happy to note that the Commission has fully automated its data collection processes and is working closely with Universities to implement the same.

Dr. Fred O. Matiang'i, PhD, EGH
Cabinet Secretary
Ministry of Education

Introduction

The role of research in identifying problems and proffering solutions in society cannot be overemphasized. It is through diligent research and publication of it that breakthroughs in science and technology have been made. Today the world is sitting on the crest of Information Technology which is driving all aspects of human endeavor. Learning in schools, technology and cultural social dynamics are all interfacing in a seamless manner that has transformed lives.

The Government has recognized the important role which research plays in the economic development of the country and has allocated significant funds to it in recent budgets. It has enhanced the capacity and capitation of research institutions to promote more research activities.

This publication on the *"State of University Education in Kenya"* comes at the right time when the Country is grappling with issues of increased student enrolment in our universities, shortage of academic staff and is looking for ways of improving research productivity.

I note that the report is being launched at the conference on the state on higher education in Kenya. This is the first ever status report on the sector to be produced since independence. I would like to thank the Commission for University education staff for producing this timely report.

The report will go a long way in helping to improve planning and policy formulation for the sector. This is a good beginning and I would like to encourage many such publications which will go a long way in helping the country to understand the dynamics within its educational sector; and put in place mechanisms for improving the same.

Prof. Collete A. Suda, PhD, FKNAS,CBS
Principal Secretary,
Ministry of Education, Kenya

Prologue

University Statistics Report presents the first ever-comprehensive university data covering the following key thematic areas: Academic programmes, student enrolment, staffing, graduation trends and finance. This is in line with the specific function of the Commission for University Education stipulated in Section 5 (1) of the Universities Act, 2012 which mandates the Commission to collect, disseminate and maintain data on university education. The Act has also empowered the Commission to regulate private universities. Their data is also contained in this report.

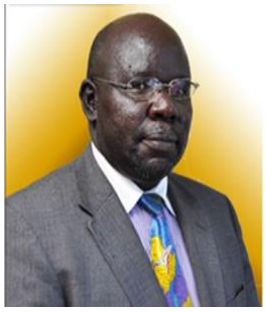
Data collected is current, accurate and disaggregated to capture as many variables as possible from the university sector. The dynamics of gender, programme diversification, training, staff-student ratio and financing have all been documented in this report. The report will lay a strong foundation for annual data collection from universities. This will form a rich silo of data; thus empowering the national statistical base with timely and reliable data. Policies and projections will, therefore, be made based on tangible up-to-date data. There will also be greater efficiency in the implementation of projects and realization of targets. In a world that is increasingly managed by information and driven by technology, data is the vital ingredient that makes it sustainable.

This report will be handy to the policy makers in State Departments, Private sector, NGOs, Development Partners and any other interest groups who may want to partner with the university sector in matters of training and research.

The Commission has put in place a framework for assuring the quality of research and data collection in the university sector. In doing this, the Commission is propelled by ideals enshrined in its Vision, Mission, Strategic Objectives and Core Values.

Prof. Henry Thairu, PhD, OGW
Chairman,
Commission for University Education

Acknowledgement



The University Data Report would not have been possible without the contribution of several people. First, I would like to thank the Chairman and the entire Commission fraternity for their steadfast support during the process of collecting and processing the University Data Book.

Secondly, I deeply acknowledge the contribution of the University of Groningen, Netherlands led by Prof. Jan Deinum who provided the technical support in the development of the tool and funds for the workshops held with the stakeholders under the auspices of NICHE Project.

Thirdly, I would like to thank both public and private universities for their wholehearted support in providing data on key thematic areas: Academic programmes, student enrolment, staffing, graduation trends and finance which have been analyzed in this Report; and for working closely with the Commission in this initiative.

Last but certainly not least, I would like to express my deepest appreciation to the team in the Division of Planning, Research and Development for their hard work, commitment and resilience to the task of producing this important Report. These include Prof. Jackson Too, the Senior Assistant Commission Secretary (Research and Development); Ms. Hyrine Matheka, Senior Assistant Commission Secretary (Planning and Resource Mobilization); Mr. Silas Oure, Planning Officer (Planning and Policy Analysis); Ms. Stella Kiptoo, Assistant Commission Secretary; Mr. Pius Walela, Senior Research Officer; Mr. Muriithi Njeru, Data Analyst; Mr. Reynolds Njue, Planning Officer (Partnership and Resource Mobilization); and Ms. Alice Kande, Senior Research Officer all of who worked tirelessly to deliver this first comprehensive report of university sector status. Prof. Ruth N. Otunga, University of Eldoret, is acknowledged for editing and proof reading the final works and Dr. Eusebius J. Mukhwana, the Head of our Planning, Research and Development Division for spearheading this enormous process. The process has produced the first ever status report on university education in Kenya that is comprehensive and backed by data.

I recognize and appreciate all those who made some contribution but I have not mentioned their names. I sincerely thank all of you.

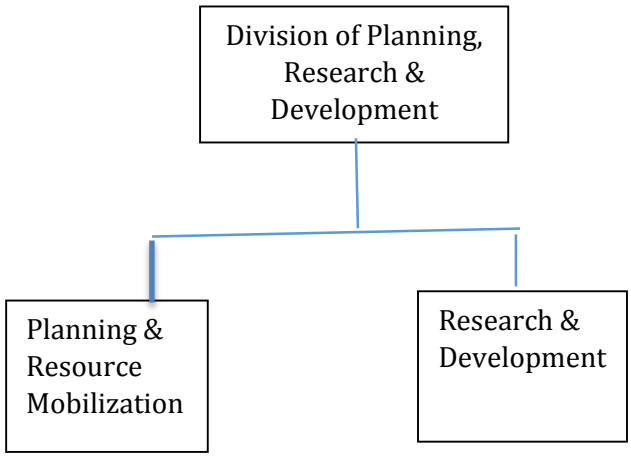
Prof. David Some, PhD
Commission Secretary/CEO
Commission for University Education

The Planning, Research and Development (PRD) Division at the Commission for University Education (CUE) is one of the new functional areas established after the Commission assumed a new structure upon the enactment of the new Universities Act 2012. The planning function was initially housed within the Planning, Administration and Finance Division in the earlier structure. It was felt that the mandate of the Commission had a big planning and research component yet these functions tended to be overshadowed by the finance and administration functions. To alleviate this problem, this division was created in August 2013.

1.1 Functions of the Division

The functions of this division are to;

1. Promote Quality University Research, Innovation and industry linkages in Kenya;
2. Advise the Cabinet Secretary on University Education Policy issues;
3. Spearhead Monitoring and Evaluation of University Education systems in relation to national development goals;
4. Provide leadership on formulation of the Commission's Research and Innovation agenda;
5. Formulate and review the Commission's Development and Resource Mobilization Strategies;
6. Develop Policy for Criteria and Requirements for Admissions to Universities in Kenya;
7. Collect, Disseminate and Maintain data on University Education in Kenya; and
8. Develop and manage the commission's Performance Management systems (Performance contracting, strategic planning and ISO certification).



2.0 Departments within the Division

The Division has two Departments

1. Planning and Resource Mobilization (PRM); and
2. Research and Development (RD).

2.1 Planning and Resource Mobilization (PRM)

This Department performs the functions of data collection, analysis and documentation; analysis and review of the commission's policies, strategies and programs; provision of technical advice on critical cross cutting management issues to the commission; undertaking studies on the impacts of social-economic changes in the country on university education; monitoring and evaluation of CUE Research Projects; Coordination of long term planning and development of University Education in Kenya; setting project priorities and ensuring optimal resource utilization; Development and implementation of the commission's Annual work plan, performance management systems (performance contracting and ISO 9001:2008 Quality Management systems); Coordinating the development, implementation and review of CUE's strategic plan, mobilizing resources and managing linkages and partnerships geared towards the promotion of University Education, Managing the education management and research information management systems (RIMS) for university education and research and coordination of University admissions.

2.2 Research and Development (RD)

This department is tasked with the following functions: Conducting research on critical issues in university education; preparation of research funding proposals in support of university education; conducting relevant manpower surveys an studies; publishing and disseminating research findings on university education and research; formulation, implementation and review of university research policies and strategies; liaising with government, university, industry, development partners and research institutions locally and internationally to develop an efficient and effective university research agenda for the country; mobilizing funds and resources to support CUE's and university research; promoting and strengthening the research arm of the commission; developing the capacities of universities and the CUE in fundraising, project management, report and scientific writing, monitoring and evaluation of Research Projects; ensure that universities offer quality postgraduate research training, improved research projects management, develop and implement policies on plagiarism and open access; asses and align university research with the national development agenda including vision 2030.

Dr. Eusebius J. Mukhwana, PhD

Deputy Commission Secretary

Planning, Research and Development

Executive Summary

The 2015 State of University Report in Kenya has been developed by the Commission for University Education in accomplishing its mandate of ensuring the maintenance of standards, quality and relevance in all aspects of university education, training and research. Specifically the Commission has a duty to collect, disseminate and maintain data on university education and to promote quality research and innovation. This report is organized into ten chapters namely: background information; methodology; universities academic programmes; universities students' enrolment; universities academic staff, universities academic staff distribution by rank; universities graduations; universities income and expenditure; major findings; and conclusions and recommendations.

Chapter one provides the background and overview of the Commission for University Education. It presents the mandate, functions, vision and the mission of the Commission as well as the Commission's core values. Then transits to Chapter two, which gives a synopsis of the methodology used in collecting and analyzing data which culminated to this publication. It broadly covers the development and validation of the data collection instrument; the data collection and processing; and validation of data. This Chapter also presents the scope and limitation of the data.

In Chapter three universities academic programmes have been discussed lucidly. It begins by giving a summary of universities academic programmes in public and private universities. The academic programmes are further clustered and classified in terms of university categories. The chapter further gives the implications of the universities programmes in view of Kenya's long term development agenda.

Student enrolment is perhaps the cornerstone of this report. Accurate statistics of students in the Universities is constantly sought by several government agencies to enable them plan well and allocate resources equitably. Chapter four has presented a detailed report on students' enrolment in universities. It gives students enrolment in public and private universities segregated in terms of gender. It also gives enrolment per programme level and cluster. The chapter analyses male and female enrolment per academic programme level and provides calculations of the ratio of academic staff to students. Postgraduate students constitute the pool from which the next generation of academics is drawn. Unfortunately, the number of master's and doctoral enrolments remains relatively small. Available data show that men dominate postgraduate enrolments. Finally it gives

the enrolment of international students and as well as students with disability. The data of these last two types of enrolments were not adequately captured, because universities have not yet developed robust tools to tease out such data.

The academic qualification and distribution of staff by rank were analyzed in depth in Chapter five and six. A very significant finding which has been reported in these two Chapters is that there were fewer doctoral than master's degree holders. The evidence further points to the fact that the number of males with master's and doctorate degrees is consistently higher than that of females with such degrees. The distribution of men and women across ranks shows that the latter are underrepresented at the higher ranks — from senior lecturer to full professor — and overrepresented at the level of lecturer and below. This calls for concerted efforts to encourage female enrolment in postgraduate programmes; to support them to stay in those programmes; to ensure that they are able to complete their programmes successfully and to mentor them in their pursuit of academic careers.

Data gathered and presented in Chapter seven shows that the graduation numbers were highest at bachelor's level and lowest at PhD level. The highest number of graduands across universities in the various clusters was in Business and Administration and lowest in science-based clusters. The few PhD graduands and low numbers of those graduating from science-based clusters do not support the science, technology and innovation orientation that the government has always advocated for to meet the needs for development. The low graduation rates at higher level does not bode well for developing an adequate pool of high-quality future academics. The government, universities, national tertiary educational institutions and the private sector need to work together to develop creative complementary funding models that promote high quality postgraduate training.

Chapter eight presents universities income and expenditure. It identifies the various income streams and expenditure items in the universities and gives the proportions of each. It further analyses the budget surplus/deficit realized by the universities. It concludes with highlighting the implications of these findings.

The major findings have been discussed in Chapter nine. They are summarized and modelled along the following thematic areas: university enrolment; university staffing; university programmes; graduations and university income and expenditure.

Chapter ten presents the conclusions and recommendations with regard to enrolment of international students and students living with disability; enrolment in STEM; university academic programmes; and university academic staff and qualifications.

Finally the annexes provide comprehensive information of other university data. These are necessary for planning and monitoring of the university sub sector.

Abbreviations

CUE	Commission for University Education
GLUK	Great Lakes University of Kisumu
HELB	Higher Education Loans Board
ICT	Information Communication Technology
ISCED	International Standard Classification of Education
JKUAT	Jomo Kenyatta University of Agriculture and Technology
KAG	Kenya Assemblies of God
KAG	Kenya Assemblies of God
KCA	Kenya College of Accountancy
KENET	Kenya Education Network
KICD	Kenya Institute of Curriculum Development
KU	Kenyatta University
KUCCPS	Kenya Universities and Colleges Central Placement Service
LIA	Letters of Interim Authority
MOEST	Ministry of Education, Science and Technology
MOEST	Ministry of Education, Science and Technology
NACOSTI	National Commission for Science Technology and Innovation
NGO	Non-Governmental Organization
NRF	National research fund
OECD	Organization for Economic Co-operation and Development
PGD	Post Graduate Diploma
PhD	Doctor of Philosophy
PRD	Planning Research and Development
PRM	Planning and Resource Mobilization
PSSP	Privately Sponsored Students' Programme
PSSP	Privately Sponsored Students
RD	Research and Development
RIMs	Research Information Management Systems
SDG	Social Development Goals
SDGs	Sustainable Development Goals
STEM	Science Technology Engineering and Mathematics

TVETA	Technical Educational and Vocational Training Authority
UFB	Universities Funding Board
UNESCO	United Nations Educational, Scientific and Cultural Organization
UOG	University of Groningen
UON	University of Nairobi

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Chapter One

Background Information

1.1 Introduction

The Commission for University Education was established by an Act of Parliament, the Universities Act No. 42 of 2012 to regulate, coordinate and assure quality in university education as a result of rapid growth and expansion of the university sub-sector in Kenya. The Commission was established to initiate standards and policies that would strengthen the gains realized and provide remedies to areas of weakness in the sector. Pursuant to Vision 2030, founded on the social, economic and political pillars; the university sub-sector will contribute in promoting research and innovation immensely. Provision of timely, accurate and reliable data will stimulate growth and development of the country. This is what the Commission is committed to doing.

1.2 Mandate

The mandate of the Commission is to ensure the maintenance of standards, quality and relevance in all aspects of university education, training and research. The Commission mainstreams quality assurance practices in university education and encourages continuous improvement in the management of the quality of university education. The enactment of the Universities Act, 2012 extended the quality assurance mandate of the Commission to cover both public and private universities.

1.3 Specific Functions of the Commission

The specific functions of the Commission for University Education are stipulated in Section 5 (1) of the Universities Act of 2012 as follows:

a) Promote the objectives of university education;
b) Advise the Cabinet Secretary on policy relating to university education;
c) Promote, set standards and assure relevance in the quality of university education;
d) Monitor and evaluate the state of university education systems in relation to the national development goals;

e) License any student recruitment agencies operating in Kenya and any activities by foreign universities;

f) Develop policy for criteria and requirements for admission to universities;

g) Recognize and equate degrees, diplomas and certificates conferred or awarded by foreign universities and institutions in accordance with the standards and guidelines set by the Commission from time to time;

h) Undertake or cause to be undertaken, regular inspections, monitoring and evaluation of universities to ensure compliance with set standards and guidelines;

i) Collect, disseminate and maintain data on university education;

j) Accredit universities in Kenya;

k) Regulate university education in Kenya;

l) Accredit and inspect university programmes in Kenya;

m) Promote quality research and innovation; and

n) Perform such other functions and exercise such powers as the Commission may deem necessary for the proper discharge of its mandate under the Act.

1.4 Vision

Accessible, relevant and sustainable quality university education

1.5 Mission

To regulate and assure quality university education by setting standards & guidelines and monitoring compliance to achieve global competitiveness.

1.6 Corporate Values

- Professionalism;
- Integrity;
- Teamwork;
- Accountability; and
- Responsiveness.

Chapter Two

Methodology

2.1 Introduction

University data is one of the most important information required from the universities. The MOEST needs this data regularly to plan and provide for the various needs in the university sector. As a regulator, the Commission is best placed to collect and analyze data before submitting a report to the MOEST. Data not only enables good planning, but also informs policy and Sessional papers that the Ministry prepares from time to time. This effort is based on the belief that no meaningful national development can be achieved without empowering the national statistical database with timely and reliable data. Policies built on evidence will be better at targeting their purpose and increasing efficiency. In an ever dynamic, sophisticated and knowledge-driven world, data is the vital ingredient that makes it sustainable. Analyzed data engenders prudent decisions and realistic projections.

The data collected from both public and private universities covers various aspects in the university such as enrolment, staffing, programmes, staff qualification, graduation trends and enrolment of students with disabilities. This data will lay the foundation for statistical information which will offer a reliable database for designing evidence-based policy in universities in Kenya and form the basis for further research and analysis. Policy makers, researchers, postgraduate students, State Departments, Non-Governmental Organizations and numerous other stakeholders in the education sector will find this l data output invaluable.

2.2 Design of Data Collection

The design of this data collection process was quantitative. The target population was students and academic staff in all public and private universities in Kenya. The sampling design was a saturated census in which all the cases were considered. Data was collected over a period of six months: from September 2015 to March 2016. There were 68 public and private universities at the time of collecting the data. However, four were ineligible because they had just been awarded the charters and did not have the target information.

Data was collected using a questionnaire with **five key thematic areas namely: Academic programmes, students' enrolment, staffing, graduation trends and Income & Expenditure**. With respect to academic programmes, the International Standard Classification of Education (ISCED) developed by UNESCO was adopted. It classifies programmes offered in universities into twenty-one and provides a means for comparison of education statistics and indicators across countries through uniform and internationally agreed definitions.

The tool captured enrolment of students in public and private universities desegregated by gender, academic level, country of origin and disability. For academic staff; gender, academic qualification, establishment and tenure (i.e. whether full time or part time) were captured in the tool.

Data collected on graduation trends covered four years from 2012 to 2015. This was desegregated by gender and academic level while data on finances focused on the sources of funds and expenditures over a four-year period.

Development and validation of the Data Collection Instrument

Staff in Research and Development section of the Commission, in conjunction with research experts from the University of Groningen in Netherlands, developed the tool for collecting data from universities. In order to secure its validity and usability, it was subjected to two validation workshops, each lasting four days. Two officers from each university (Registrar and Quality Assurance Officer) were invited for the workshops. In the first workshop, the existing gaps, the university sector database and the need for data for planning purposes was explained. The suspicion that plans to collect data for some punitive action was dispelled at an early stage. The officers were taken through the tool to be familiar with each item and to seek clarification where there was any misconception. The intense discussions which followed contributed significantly to the improvement of the tool. The tool was in Excel sheet format and they were required to fill the sheet and submit to the Commission.

After three months a second workshop was convened. The purpose of the second workshop was to review the progress of compiling data and submitting the same to the commission. The Commission had noted with concern the slow pace of transmitting the data. This was also an

opportune time to address any difficulties in keying in data. Indeed, it was in this second session of the workshop that some challenges emerged.

The first such a challenge was the information required of them to indicate the County of student enrolment. They reported that their registration forms had not yet been updated to capture county information. Consequently, the space for that information was left blank.

The second challenge was the classification of programs into clusters. It was observed that the UNESCO Classification Standard does not capture all programs in universities in Kenya. Most universities placed those programmes which did not fit into any of the listed clusters as "other".

The third challenge was filling in the staff per program - especially the part-time and full-time staff. There were concerns of double counting in situations where some part-time lecturers serviced more than one university.

All these issues were addressed and a mutual agreement arrived at on how to fill and harmonize the data. In so doing, both the content and construct validity were achieved.

Data Collection and Processing

Questionnaires were sent to each university through their e-mail addresses available in the Commission database. This was followed by phone calls to confirm that questionnaires had been received. The contact persons in universities were the academic registrars and/or quality assurance officers. In cases where the two could not be reached, the vice chancellors were contacted. The response rate was quite poor at the beginning, but as the deadline set drew closer, the return rate improved. However, some universities failed to submit the data even after the deadline had passed. Phone reminders yielded little as promises were made for delivery but not honoured. In some instances the phone calls were not answered. It took the intervention of higher authorities in the Commission to have the data submitted.

Data received from universities were collated and entered into one main excel sheet. This was done with the help of two interns in the Division of Planning, Research and Development. Then Planning and Research officers in the Division were assigned thematic areas to extract data from excel sheet and analyze according to the following variables: university programmes, student enrolments, staff qualifications and establishments, graduation trends and finance. Descriptive

statistics, which included frequency tables, percentages, ratios, charts and graphs were used to analyze data. These were then compiled into one document.

Validation of Data

Data validation was done in a third stakeholders workshop attended by the Registrars and Quality Assurance officers from all universities. Together with the Officers from Planning, Research and Development Division from the Commission, they engaged in cross-checking and verifying data from the universities. In attendance also, were research experts from the University of Groningen, Netherlands. Analyzed data output was interrogated to ascertain its validity and reliability. Where there were doubts or anomaly, the original data entries were scrutinized and appropriate analyzes done.

Limitations of Data

Data collection was not without challenges. There were blank spaces left by some universities, especially with regard to privately sponsored students. Classifying students as either self-sponsored, Government-sponsored or Distance learners was a challenge. The tool did not also provide entry for students with multiple disabilities.

Some universities admitted not being certain of where to place the programmes they offered against the UNESCO classification, while some programmes they offered were not listed in the classification. There was a challenge of staffing, particularly in private universities where virtually all their staff were on part-time arrangement and were mostly employed in public universities. There was the likelihood that lecturers who were counted in public universities may have also been counted in private universities. However, this was limited to the private universities with Letters of Interim Authority (LIA) and may not have had a significant effect on the overall statistics on staffing.

Financial information was incomplete or was not provided in accordance with the instructions given. Differences in financial years between private and public universities were also a challenge. However, consultations were made to enter appropriate figures.

Chapter Three

Universities Academic Programmes

3.1 Introduction

University education is a critical component of human resource development. With the convergent impacts of globalization, the increasing importance of knowledge as a main driver of growth, and the information and communication revolution, an educated populace is vital in today's world. There is growing evidence that university education is vital to a country's efforts to increase social capital and promote social cohesion which is an important determinant of economic growth and development. It is pertinent to note that for a university to be globally competitive and address the challenges of the 21st century, the programmes offered should be aligned to the dictates of the market to ensure quality and relevance.

In Kenyan, education and training is expected to be the principle catalyst towards realization of the social pillar in Vision 2030.The Vision places great emphasis on the link between Education, Training and the labour market as well as the need to create entrepreneurial skills and competencies. There's therefore, great reliance on education and training to create a sustainable pool of highly trained human resource capital that will underpin the national ambition of being a knowledge-based economy.

This chapter discusses programmes offered in universities, classified into bachelors, post-graduate diploma, masters, and doctoral levels. The chapter looks at the concentration of these programmes in the various clusters as prescribed by ISCED. The chapter begins with a summary of programmes in public and private universities followed by programmes per cluster across the six university categories as well as the programmes per cluster for each of the university levels.

3.2 Academic Programmes in Public and Private Universities

University programmes were classified into four levels namely: bachelors, post-graduate diploma, masters, and doctoral. Bachelors' level had the highest proportion of programmes at 48% (1627), followed by master's at 34% (1162), doctorate level at 15% (518) while the post- graduate diploma level had the least number of programmes at 3% (96). Of the total 3,408 programmes in both public and private universities, public universities had the bulk of the programmes at 81% (2752) while the private university had 19% (655). The figures are indicated in Table 1.

University Type	No. of Universities	Programmes per Category				Grand total
		Bachelor	Postgraduate Diploma	Master	Doctorate	
Public Universities	30	1,250	74	967	462	**2,753**
Private Universities	34	382	22	195	56	**655**
Total	**64**	**1,627**	**96**	**1,162**	**518**	**3,408**

Table 1: Programmes in Public and Private Universities

Figure 1 shows the number of programmes per level in both public and private universities.

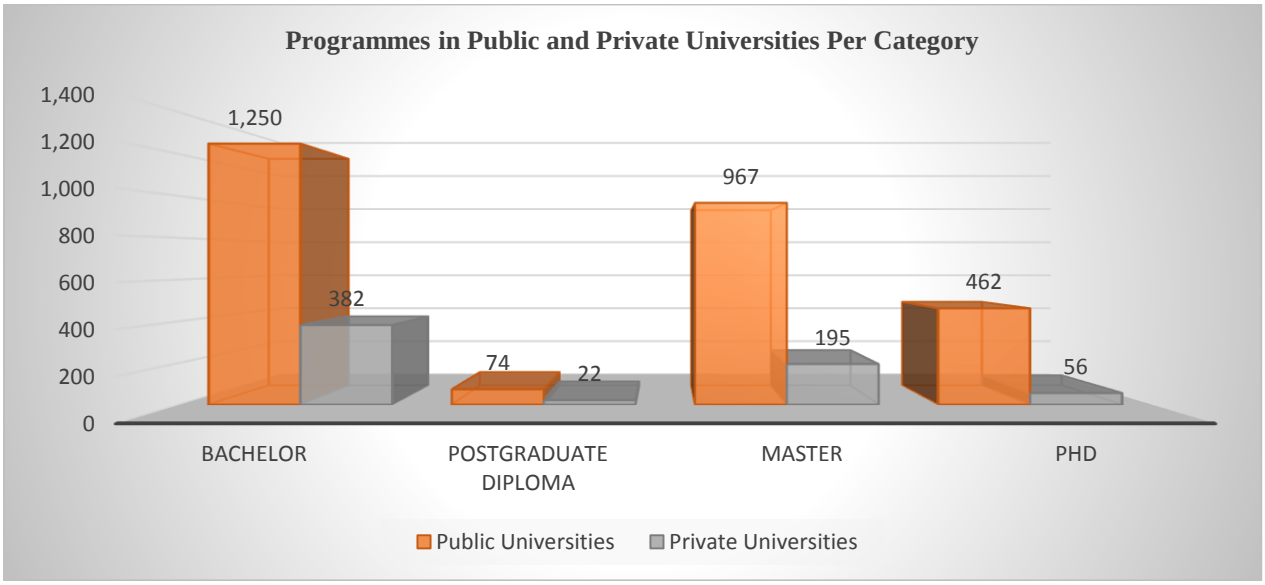

Figure 1: Programmes in Public and Private Universities

Figure 2 below shows the total number of programmes offered in public and private universities.

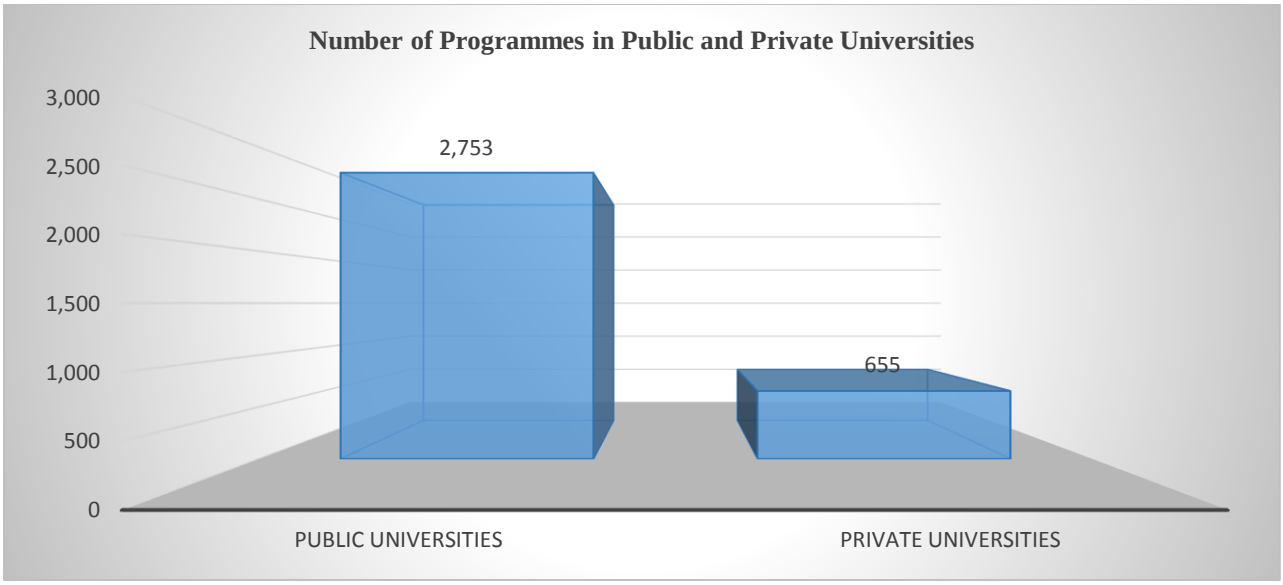

Figure 2: Total Number of Programmes in Public and Private Universities

3.3 Programmes per Cluster

The nature of programmes offered in various universities is largely determined by the nature of the institution's establishment, market forces, availability of resources, controls by professional bodies, availability and adequacy of space, facilities, and teaching staff among other factors. For purposes of this analysis, programmes were grouped into twenty (21) clusters as prescribed by the International Standard Classification of Education (ISCED).

3.3.1 Programmes per Cluster in Public Chartered Universities

As shown in Table 2, the proportion of programmes per cluster in public chartered universities varied significantly among the four levels. The most popular clusters across the levels were Life Science and Physical Science with 332 programmes, Agriculture, Forestry and Fisheries with 324 programmes, Humanities and Arts with 298 programmes, Health and Welfare with 242 programmes, and Business and administration with 236 programmes. The clusters with the lowest number of programmes were Law with 6 programmes; Manufacturing with 9 programmes; Architecture with 26 programmes; Veterinary with 31 programmes; Security and Conflict Resolution with 40 programmes and un- identified cluster classified as others with 12 programmes.

The table similarly highlights the number of programmes per level, and out of the total 2,556 programmes in public chartered universities, bachelors' level had the highest number with 1,129 programmes, followed by master's level with 922 programmes; doctoral level followed with 433

programmes while post-graduate diploma level had the least number of programmes within the clusters with only 72 programmes. The figures and proportions are given in Table 2 below.

Clusters	Number of Programmes in Public Chartered Universities					
	Bachelor	Post Graduate Diploma	Master	PhD	Total	Proportion
Agriculture, Forestry and Fisheries	140	8	115	61	324	**12.7%**
Architecture	17	0	5	4	26	**1.0%**
Business and Administration	110	7	85	34	236	**9.2%**
Computing	62	2	22	12	98	**3.8%**
Education (Arts)	57	11	95	49	212	**8.3%**
Education (Science)	25	1	14	7	47	**1.8%**
Engineering	85	2	34	13	134	**5.2%**
Environment	48	2	46	24	120	**4.7%**
Health and Welfare	92	5	107	38	242	**9.5%**
Humanities and Arts	102	4	127	65	298	**11.7%**
Journalism and Information	33	1	16	9	59	**2.3%**
Law	5	0	1	0	6	**0.2%**
Life Science and Physical Science	164	5	116	47	332	**13.0%**
Manufacturing	7	0	1	1	9	**0.4%**
Mathematics and Statistics	44	6	43	24	117	**4.6%**
Security and Conflict Resolution	16	4	13	7	40	**1.6%**
Services	40	0	9	5	54	**2.1%**
Social and Behavioral Science	45	8	43	16	112	**4.4%**
Teacher Training	20	4	16	7	47	**1.8%**
Veterinary	10	0	12	9	31	**1.2%**
Other	7	2	2	1	12	**0.5%**
Totals	1129	72	922	433	2556	**100.0%**

Table 2: Proportion of Programmes per cluster in Public Chartered Universities

Figure 3 shows the proportion of programmes per cluster in public chartered universities.

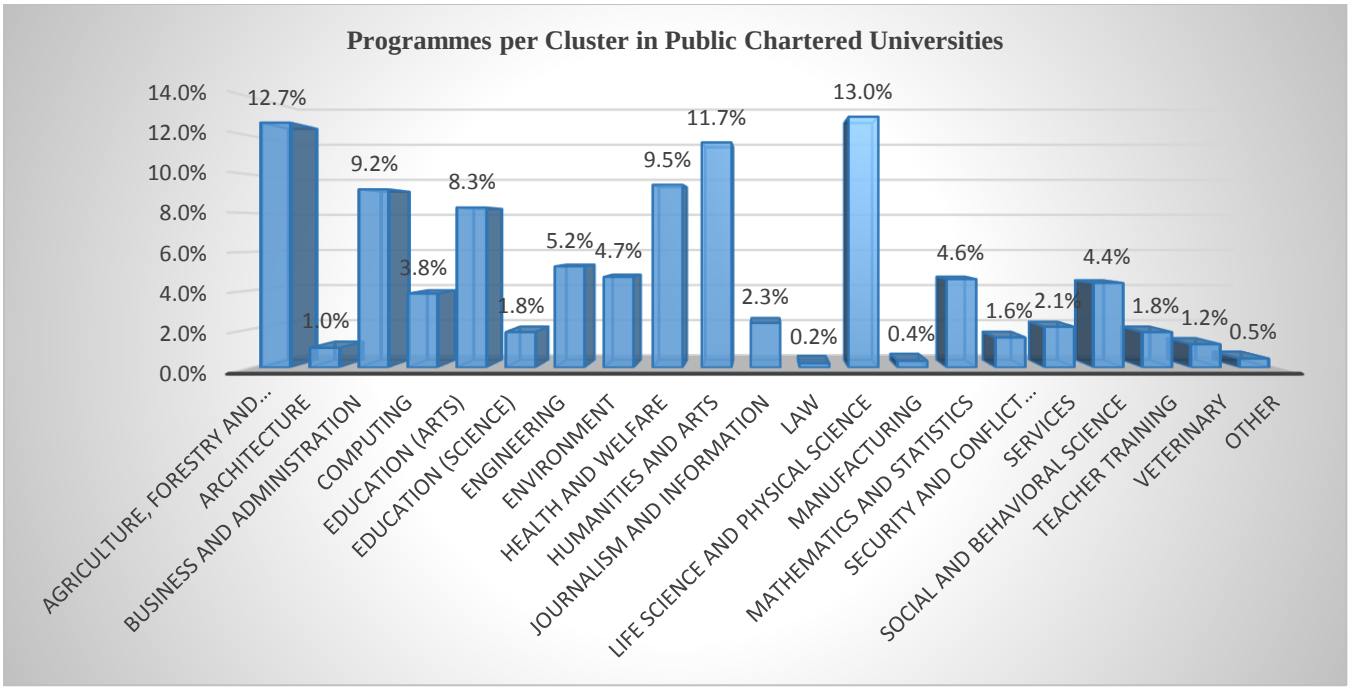

Figure 3: Proportion of Programmes per cluster in Public Chartered Universities

3.3.2 Programmes per cluster in Public University Constituent Colleges

As indicated in Table 3 below, most of the clusters did not have any programmes in the universities. The clusters with the highest number of programmes were Business and administration with 32 programmes; Agriculture, Forestry and Fisheries with 30 programmes; Humanities and Arts with 28and Life Science and Physical Science with 20 programmes. On the other hand, most science – oriented clusters such as Architecture, Engineering, Veterinary as well as Law were sharply under-represented. The table further shows a higher concentration of programmes at bachelors level with a total of 121 programmes across the colleges while the post-graduate diploma level trailed with only 2 programmes.

Compared with the programmes per cluster in public chartered universities, the numbers of programmes per cluster in public university constituent colleges were significantly fewer.

Clusters	Number of Programmes per Cluster in Public University Constituent Colleges					Proportion
	Bachelor	Post Graduate Diploma	Masters	PhD	Total	
Agriculture, Forestry and Fisheries	16	0	6	8	30	**15.2%**
Architecture	0	0	0	0	0	**0.0%**
Business and administration	23	1	6	2	32	**16.0%**

Computing	9	0	2	0	11	**5.6%**
Education (Arts)	5	1	1	0	7	**3.6%**
Education (Science)	3	0	0	0	3	**1.5%**
Engineering	4	0	0	0	4	**2.0%**
Environment	4	0	1	1	6	**3.1%**
Health and Welfare	2	0	0	0	2	**1.0%**
Humanities and Arts	15	0	11	2	28	**14.2%**
Journalism and Information	7	0	2	1	10	**5.1%**
Law	0	0	0	0	0	**0.0%**
Life Science and Physical Science	9	0	5	6	20	**10.2%**
Manufacturing	1	0	0	0	1	**0.5%**
Mathematics and Statistics	10	0	0	0	10	**5.1%**
Security and Conflict Resolution	1	0	0	0	1	**0.5%**
Services	5	0	0	0	5	**2.5%**
Social and Behavioral Science	4	0	3	1	8	**4.1%**
Teacher Training	2	0	8	8	18	**9.1%**
Veterinary	0	0	0	0	0	**0.0%**
Other	1	0	0	0	1	**0.5%**
Total	**121**	**2**	**45**	**29**	**197**	**100.0%**

Table 3: Programmes per cluster in public university constituent colleges

Figure 4 below shows the proportion of programmes per cluster in public university constituent colleges.

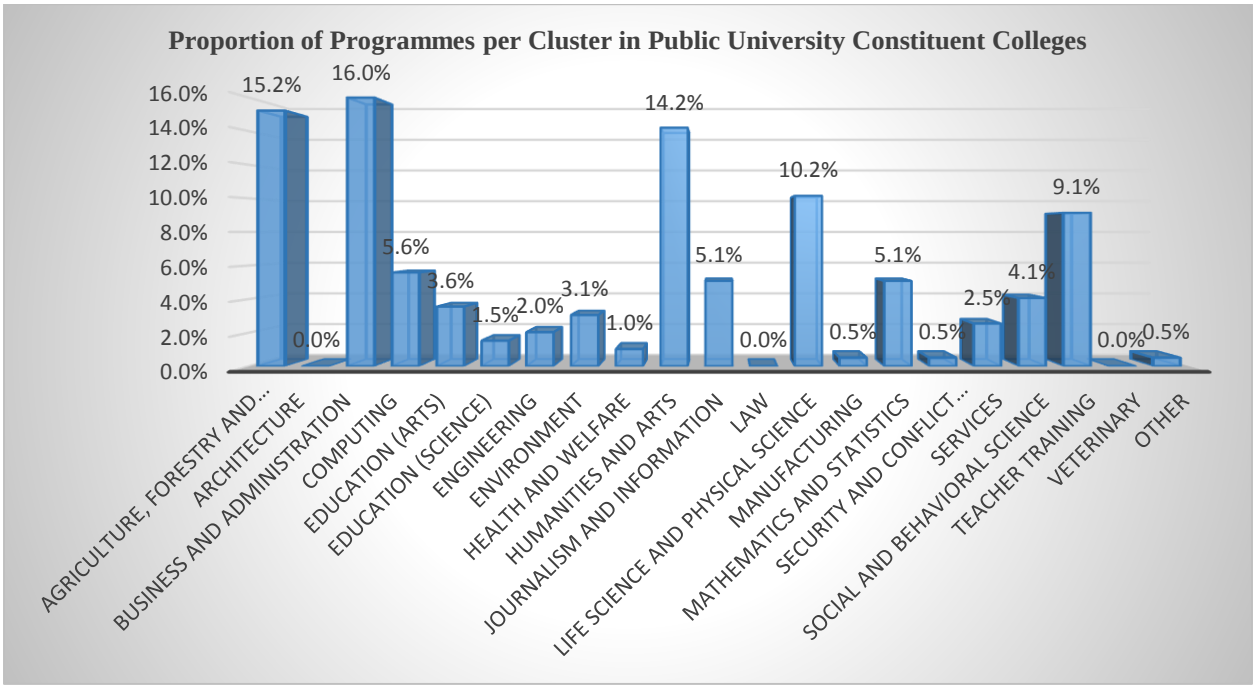

Figure 4: Proportion per cluster in public university constituent colleges

3.3.3 Programmes per Cluster in Private Chartered Universities

In private chartered universities, concentration of programmes was more in the Humanities and Arts cluster with 127 programmes, followed by Business and Administration with 97 programmes, Education (Arts) and Health and Welfare each with 48 programmes, social and Behavioral science with 46 programmes and Computing with 44 programmes. The least popular clusters were Architecture, Manufacturing, Veterinary, Education Science and Law programmes.

Bachelors' level had the highest number of programmes across the clusters with 298 programmes, followed by master's level with 175 programmes, PhD level with 47 programmes while post-graduate diploma had the lowest with 13 programmes.

Clusters	Number of Programmes per Cluster in Private Chartered Universities					Proportion
	Bachelor	Postgraduate Diploma	Masters	PhD	Total	
Agriculture, Forestry and Fisheries	4	0	2	2	8	1.5%
Architecture	0	0	0	0	0	0.0%
Business and administration	50	0	40	7	97	18.2%
Computing	31	0	12	1	44	8.3%
Education (Arts)	27	3	12	6	48	9.0%
Education (Science)	5	0	0	0	5	0.9%
Engineering	7	0	0	0	7	1.3%
Environment	5	0	3	0	8	1.5%
Health and Welfare	32	1	14	1	48	9.0%
Humanities and Arts	47	4	57	19	127	23.8%
Journalism and Information	8	0	3	1	12	2.3%
Law	6	0	0	0	6	1.1%
Life Science and Physical Science	12	0	1	0	13	2.4%
Manufacturing	1	0	0	0	1	0.2%
Mathematics and Statistics	7	0	3	2	12	2.3%
Security and Conflict Resolution	5	0	2	0	7	1.3%
Services	8	0	1	0	9	1.7%
Social and Behavioral Science	23	0	18	5	46	8.6%
Teacher Training	16	5	5	1	27	5.1%
Veterinary	1	0	0	0	1	0.2%
Other	3	0	2	2	7	1.3%
Total	**298**	**13**	**175**	**47**	**533**	**100.0%**

Table 4: Programmes per cluster in private chartered universities

Figure 5 represents the proportion of programmes per cluster in private chartered universities.

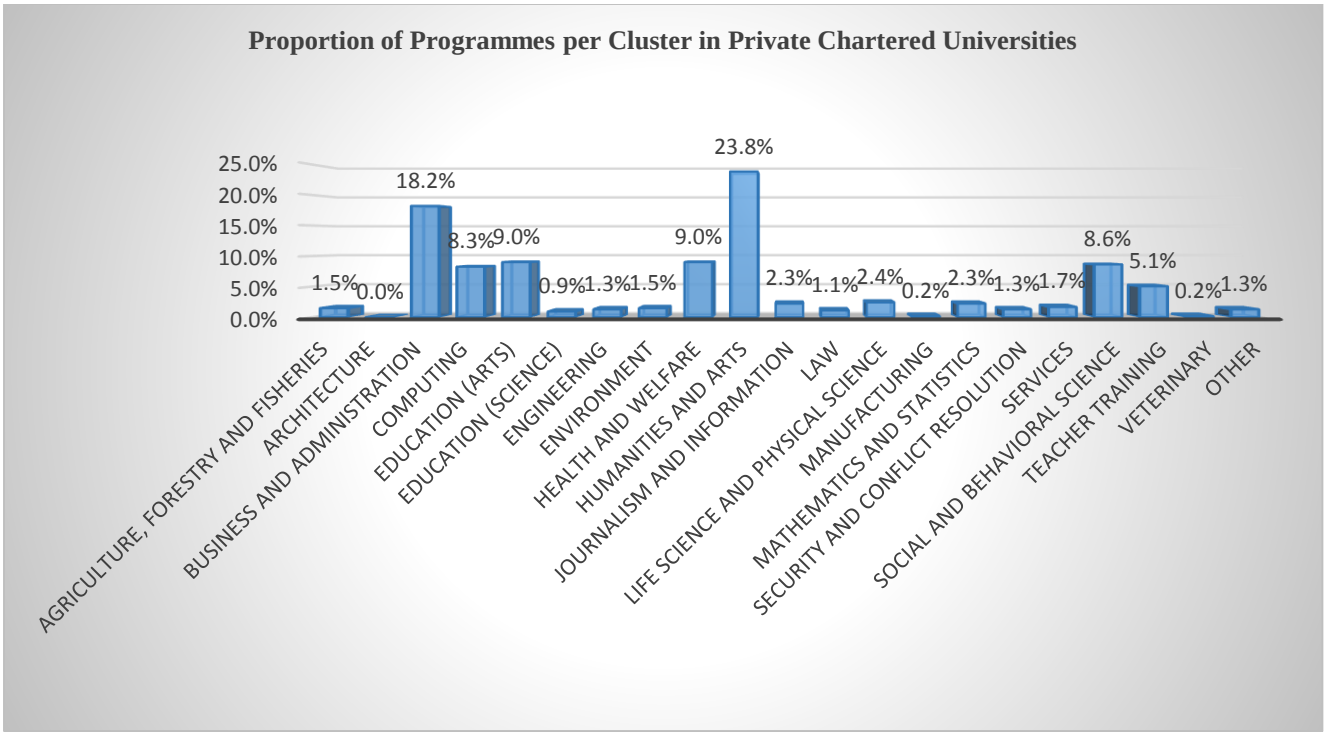

Figure 5: Proportion of programmes per cluster in private chartered universities

3.3.4 Programmes per cluster in Private University Constituent Colleges

As indicated in Table 5 below, most of the private university constituent colleges had programmes in less than half of the clusters. The scarcely represented clusters were Social and Behavioral Science and Humanities and Arts with 8 programmes; Health and Welfare with 6 programmes, Education (Arts) with 3 programmes, Business and Administration with 2 programmes, while Education (Science), Journalism and Information, Security and Conflict Resolution had one programme each.

The total number of programmes across the clusters per level is also comparatively low with 19 programmes at bachelor's level, 10 programmes at master programmes; and only 2 programmes at doctorate level. There were no Post-graduate programmes offered in private university constituent colleges.

Clusters	Number of Programmes per Cluster in Private University Constituent Colleges					
	Bachelor	Post Graduate Diploma	Masters	PhD	Total	Proportion
Agriculture, Forestry and Fisheries	0	0	0	0	**0**	**0.0%**
Architecture	0	0	0	0	**0**	**0.0%**
Business and administration	1	0	1	0	**2**	**6.5%**
Computing	0	0	0	0	**0**	**0.0%**
Education (Arts)	2	0	1	0	**3**	**9.7%**
Education (Science)	0	0	1	0	**1**	**3.2%**
Engineering	0	0	0	0	**0**	**0.0%**
Environment	0	0	0	0	**0**	**0.0%**
Health and Welfare	6	0	0	0	**6**	**19.4%**
Humanities and Arts	3	0	5	0	**8**	**25.8%**
Journalism and Information	1	0	0	0	**1**	**3.2%**
Law	0	0	0	0	**0**	**0.0%**
Life Science and Physical Science	0	0	0	0	**0**	**0.0%**
Manufacturing	0	0	0	0	**0**	**0.0%**
Mathematics and Statistics	0	0	0	0	**0**	**0.0%**
Security and Conflict Resolution	0	0	1	0	**1**	**3.2%**
Services	0	0	0	0	**0**	**0.0%**
Social and Behavioral Science	5	0	1	2	**8**	**25.8%**
Teacher Training	0	0	0	0	**0**	**0.0%**
Veterinary	0	0	0	0	**0**	**0.0%**
Other	1	0	0	0	**1**	**3.2%**
Total	**19**	**0**	**10**	**2**	**31**	**100.0%**

Table 5: Programmes per cluster in private university constituent colleges

Figure 6 represents the proportion of programmes per cluster in private university constituent colleges.

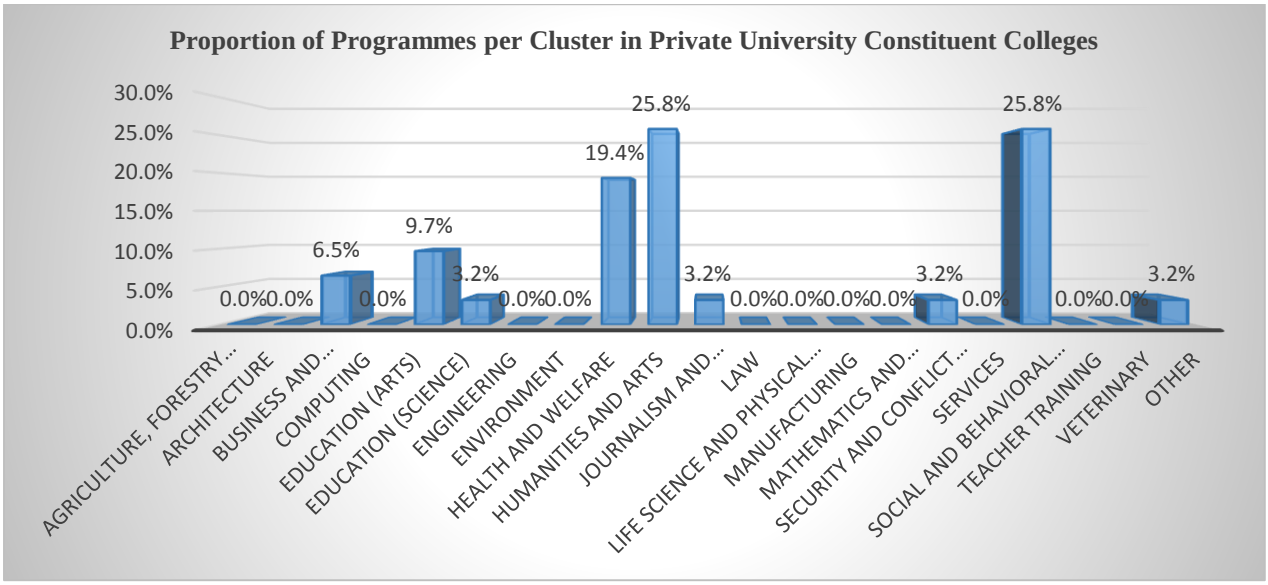

Figure 6: Proportion of programmes per cluster in private university constituent colleges

3.3.5 Programmes per Cluster in Private Universities with LIA

As indicated in Table 6 below, the cluster with the highest number of programmes was Education (Arts) with 17 programmes followed by Business and Administration with16 programmes, Humanities and Arts with 11 programmes, and computing with 10 programmes. Notably, Private Universities with LIA had no programmes in most of the science – oriented clusters.

The table similarly indicates high concentration of programmes at bachelors level with 54 programmes, followed by master's level with 7 programmes, post-graduate diploma level with 9 programmes while doctorate level had the least with 3 programmes.

Clusters	Number of Programmes in Private Universities with Letters of Interim Authority					Proportion
	Bachelor	Postgraduate Diploma	Masters	PhD	Total	
Agriculture, Forestry and Fisheries	0	0	0	0	0	0.0%
Architecture	0	0	0	0	0	0.0%
Business and administration	11	3	1	1	16	21.9%
Computing	9	1	0	0	10	13.7%
Education (Arts)	16	1	0	0	17	23.3%
Education (Science)	0	0	0	0	0	0.0%
Engineering	0	0	0	0	0	0.0%
Environment	0	0	0	0	0	0.0%
Health and Welfare	4	1	1	0	6	8.2%
Humanities and Arts	6	0	4	1	11	15.1%
Journalism and Information	1	1	0	0	2	2.7%
Law	1	0	0	0	1	1.4%
Life Science and Physical Science	0	0	0	0	0	0.0%
Manufacturing	0	0	0	0	0	0.0%
Mathematics and Statistics	1	0	0	0	1	1.4%
Security and Conflict Resolution	0	0	0	0	0	0.0%
Services	2	1	0	0	3	4.1%
Social and Behavioral Science	1	0	1	0	2	2.7%
Teacher Training	0	0	0	0	0	0.0%
Veterinary	0	0	0	0	0	0.0%
Other	2	1	0	1	4	5.5%
Total	54	9	7	3	73	100.0%

Table 6: Programmes per cluster in private universities with Letters of Interim Authority

Figure 7 shows the proportion of programmes per cluster in private universities with LIA.

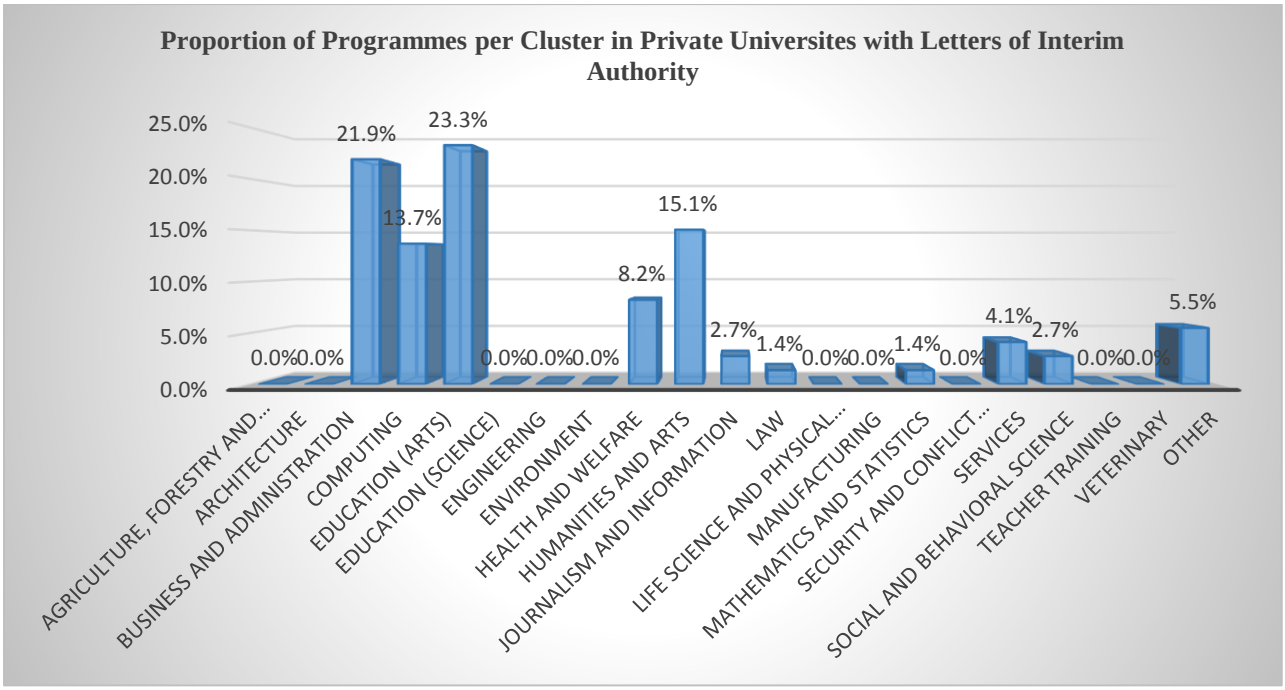

Figure 7: Proportion of Private universities with Letters of Interim Authority

3.3.6 Programmes per Cluster in Registered Private Universities

As indicated in Table 7 below, there was only one private registered university with 18 programmes spread across 21 clusters mainly within Humanities and Social sciences, while Technical and Science–oriented clusters had no programmes. The findings further indicate a higher concentration of programmes at Bachelors level, an observation that cuts across all the private universities.

Cluster	Programmes per Clusters in Private Registered Universities					Proportion
	Bachelor	Postgraduate Diploma	Masters	PhD	Total	
Agriculture, Forestry and Fisheries	1	0	0	0	1	**5.6%**
Architecture	0	0	0	0	0	**0.0%**
Business and administration	2	0	0	0	2	**11.1%**
Computing	0	0	0	0	0	**0.0%**
Education (Arts)	0	0	0	0	0	**0.0%**
Education (Science)	0	0	0	0	0	**0.0%**
Engineering	0	0	0	0	0	**0.0%**
Environment	0	0	0	0	0	**0.0%**
Health and Welfare	0	0	0	0	0	**0.0%**
Humanities and Arts	1	0	1	1	3	**16.7%**
Journalism and Information	1	0	0	0	1	**5.6%**
Law	0	0	0	0	0	**0.0%**
Life Science and Physical Science	0	0	0	0	0	**0.0%**
Manufacturing	0	0	0	0	0	**0.0%**
Mathematics and Statistics	0	0	0	0	0	**0.0%**
Security and Conflict Resolution	1	0	0	0	1	**5.6%**
Services	0	0	0	0	0	**0.0%**
Social and Behavioral Science	1	0	0	0	1	**5.6%**
Teacher Training	2	0	0	0	2	**11.1%**
Veterinary	0	0	0	0	0	**0.0%**
Other	2	0	2	3	7	**38.9%**
Total	**11**	**0**	**3**	**4**	**18**	**100.00 %**

Table 7: Programmes per cluster in private registered universities

Figure 8 represents the proportion of programmes per cluster in private registered universities.

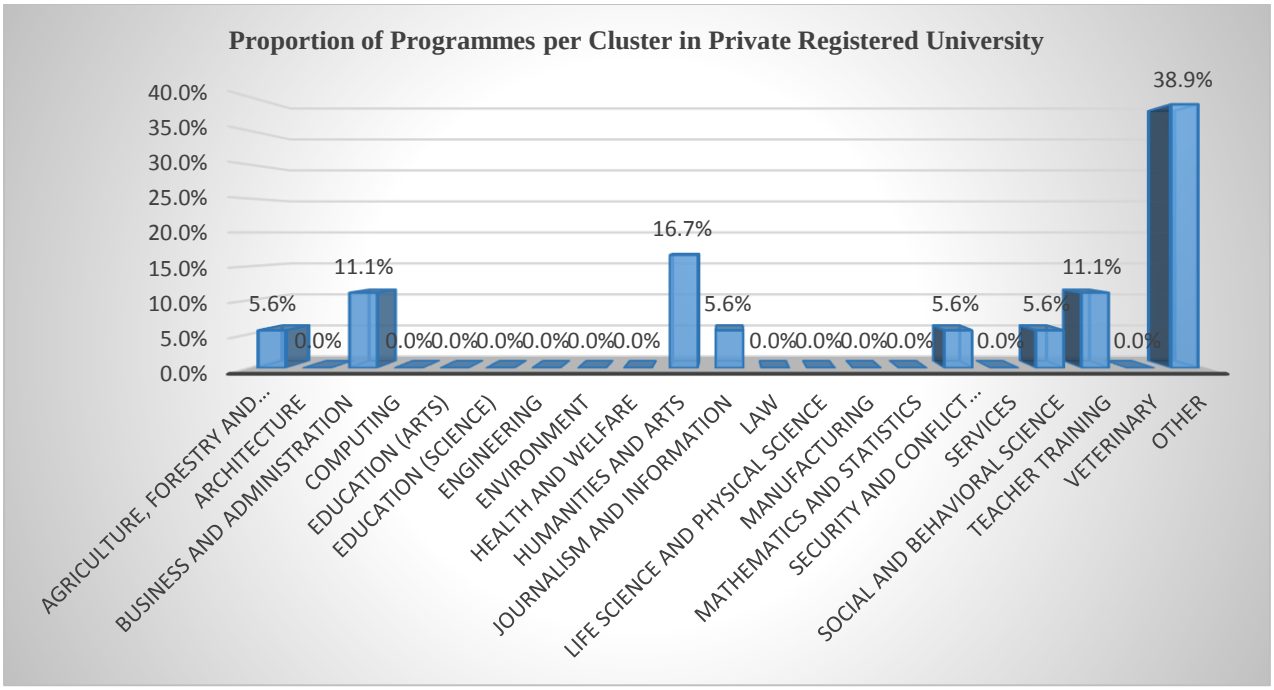

Figure 8: Proportion of programmes per cluster in private registered universities

3.3.7 Summary of Programmes in Public and Private Universities

Humanities and Arts cluster had the highest proportion of programmes across the universities at 14%, followed by Business and Administration and teacher training at 11.1%, Life Science and Physical Science programmes as well as Agriculture, Forestry and Fisheries with 10.7% each. On the other hand, the least represented clusters were Manufacturing, Law, Architecture and Veterinary. Table 8 below gives a summary of the number of programmes per cluster in both public and private universities. These findings were not unique to the Kenyan university sector. The World Bank Report (2014) indicated that the Japanese and British education systems have lately suppressed support and mounting of courses in Arts and Humanities in favour of practical subjects that better target the development needs of these nations.

Programmes Per Cluster in Public and Private Universities				Proportion
Cluster	**Public Universities**	**Private Universities**	**Total**	
Agriculture, Forestry and Fisheries	354	9	**363**	10.7%
Architecture	26	0	**26**	0.8%
Business and Administration	268	117	**385**	11.3%
Computing	109	54	**163**	4.8%
Education (Arts)	219	68	**287**	8.4%
Education (Science)	50	6	**56**	1.6%
Engineering	138	7	**145**	4.3%

Environment	126	8	**134**	3.9%
Health and Welfare	244	60	**304**	8.9%
Humanities and Arts	326	149	**475**	13.9%
Journalism and Information	69	16	**85**	2.5%
Law	6	7	**13**	0.4%
Life Science and Physical Science	352	13	**365**	10.7%
Manufacturing	10	1	**11**	0.3%
Mathematics and Statistics	127	13	**140**	4.1%
Security and Conflict Resolution	41	9	**50**	1.5%
Services	59	12	**71**	2.1%
Social and Behavioral Science	120	57	**177**	5.2%
Teacher Training	65	29	**94**	2.8%
Veterinary	31	1	**32**	0.9%
Other	13	19	**32**	0.9%
Total	**2,753**	**655**	**3,408**	**100.0%**

Table 8: Programmes per cluster in Private and Public Universities

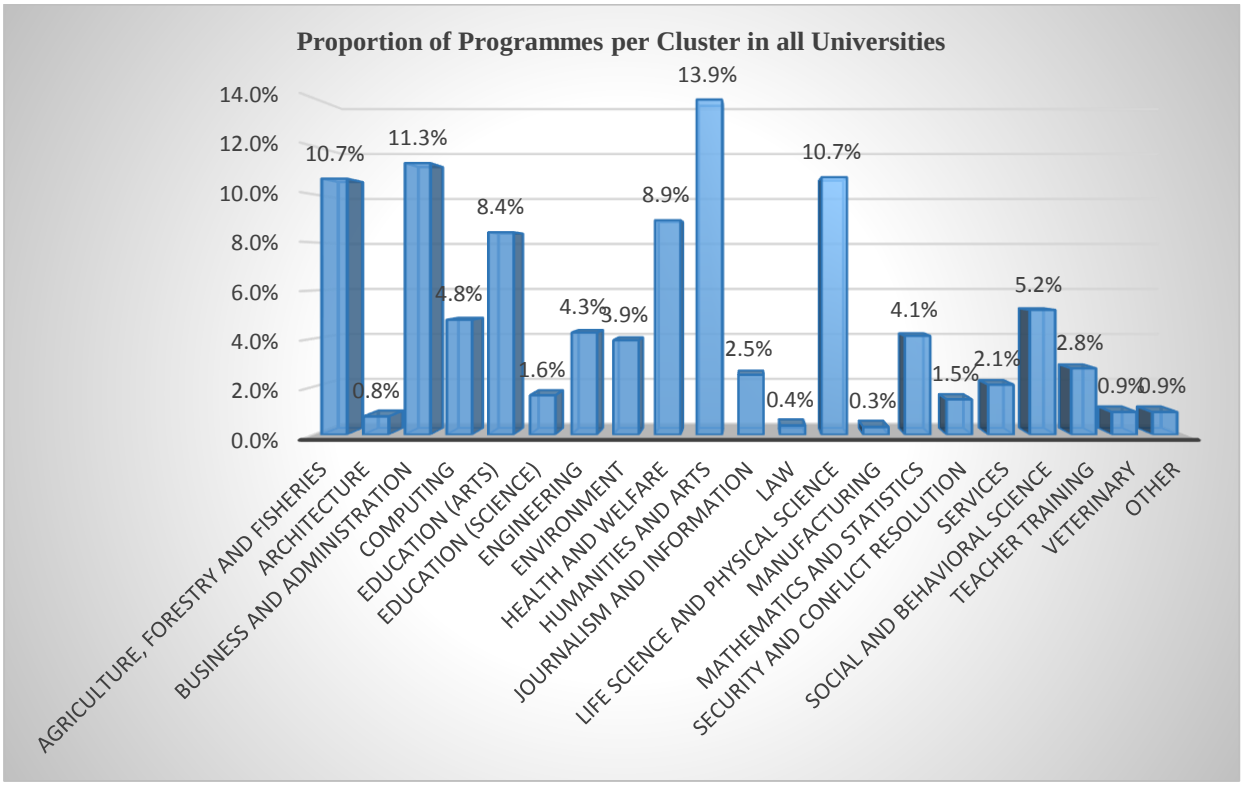

Figure 9: Proportion of programmes per cluster in Public and Private Universities

3.4 Summary of Programmes per Cluster per University Category

As indicated in Table 9 below, there was a significant difference in the number of programmes in each of the four categories of universities. Public chartered universities had the highest number of programmes at 2,556 representing 75% of the total programmes, followed by chartered private universities with 533 programmes (16%), public university constituent colleges with 197 programmes (6%), private universities with Letters of Interim Authority with 73 programmes (2%), private university constituent colleges with 31 programmes (1%) while the registered private university had 18 programmes (1%).

University Category	Programmes per Academic Level				Grand Total	Proportion
	Bachelor	Postgraduate Diploma	Master	Doctorate		
Public Chartered Universities	72	1,129	922	433	**2,556**	**75.0%**
Public University Constituent Colleges	2	121	45	29	**197**	**5.8%**
Private Chartered Universities	13	298	175	47	**533**	**15.6%**
Private University Constituent Colleges	0	14	10	2	**31**	**0.9%**
Private Universities with Letters of Interim Authority	9	54	7	3	**73**	**2.1%**
Private Registered Universities	0	11	3	4	**18**	**0.5%**
Total	**96**	**1,627**	**1,162**	**518**	**3,408**	**100.0%**

Table 9: Summary of programmes per cluster per university categories

Figure 10 shows a summary of programmes per university category.

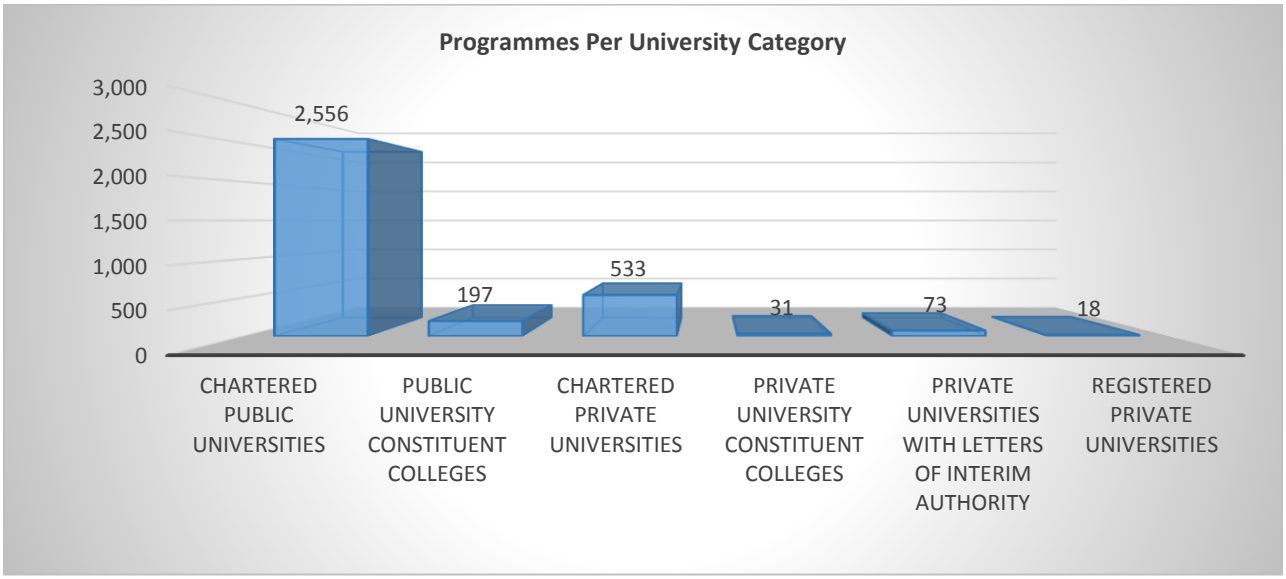

Figure 10: Programmes per University Category

3.5 Implications of the nature of Programmes offered in Universities in Kenya

The current findings have clearly indicated that public and private universities in Kenya have prioritized programmes in Business Administration, and Humanities and Arts. While the society and the market considerably require graduates with humanities and arts oriented back ground, too much concentration in arts at the expense of science – oriented programmes is likely to disadvantage some key national development sectors which require more practical skills. The findings also indicated that most programmes offered in universities were similar which implies that competition for enrolment into each programme by various institutions would mean lean class sizes and over-production of graduates with the similar skills.

Some programmes were found not to be market-driven but mounted with the expectation of generating revenue for the respective institutions. Notably, some universities developed and mounted programmes with insufficient physical facilities as well as teaching capacity. There is therefore need to consider the current as well as the future market trend in determining the programmes. Similarly, universities should be encouraged to focus more on their areas of specialization. This will eliminate unnecessary competition and assure quality delivery.

The rapid expansion of the university sector in Kenya has provided an opportunity for majority of people to access higher education. While having an educated populace is a good indicator for the country, this has also posed a number of challenges such as having many graduates who are not adequately prepared for the market or whose qualifications do not match the market demands. This calls for continuous review of the programmes offered to ensure alignment to the current and future market demands.

3.6 Alignment of Universities Programmes to the Kenya Vision 2030

The Kenya Vision 2030 envisages a "*Globally Competitive Quality Education, Training and Research for Sustainable Development*". In this regard, university education is meant to contribute to national development through high level relevant manpower training; develop the intellectual capability of individuals to understand and appreciate their local and external environments; and acquire both physical and intellectual skills which will enable individuals to be self-reliant and useful members of the society.

In order to achieve the above goals, university programmes should be clearly aligned to the development needs of the country. The realization of the objectives and targets of the Kenya Vision 2030 similarly, hinge on the successful implementation of the enablers or foundations of the three pillars. These include among others: Infrastructure (roads, rail network, sea ports airports and pipeline); Information Communication and Technology (ICT) and Science, Technology and Innovation (ST&I). The Kenya Vision 2030 further identifies seven priority sectors with high potential of spurring the country's economic growth and development. The sectors are: Tourism, Agriculture and Livestock, Wholesale and Retail trade, Manufacturing, Business process outsourcing/IT Enabled Services (ITES), financial services and oil and mineral resources. For the nation to attain the anticipated 10 percent GDP in the next 14 years, universities have a critical role to play in producing innovative graduates with relevant skills. This could be attained if curricula are aligned to the seven key priority areas.

Chapter Four

Universities Students Enrolment

4.1 Introduction

Education and Training (E&T) are means to upward social mobility, national cohesion and socioeconomic development. The Government of Kenya is committed to achieving international development commitments such as the Sustainable Development Goals (SDGs) and Education for All (EFA). The Kenya Vision 2030 emphasizes the need to address issues related to access, equity, quality, relevance, service delivery, curriculum, teacher development and management as well as training in technology and entrepreneurial skills development.

> In recent decades, access to university education has expanded remarkably providing more choices and new modes of delivery. In Privately-Sponsored Students' Programme (PSSP) or Module II, the students' enrollment is becoming increasingly heterogeneous, as adult students seek to upgrade their qualifications to succeed in a competitive labour market, or young graduates pursue second degrees.

This chapter outlines enrolment at Kenyan universities in four categories: Post-graduate Diploma, Bachelors, Masters and Doctorate and further provides enrolments per cluster. It begins with a summary of enrolments in public and private universities.

4.2 Enrolment in Public and Private Universities by Gender

In public universities, there are more male students than female students enrolled at all programme levels. The highest disparity is at the PhD level where the ratio of male to female students is over 2:1.

In private universities male students still out-number their female counterparts in post graduate, masters and PhD programmes. In bachelors programmes however, there are more female students than male students. The difference in enrolment between male and female students may be attributed to factors such as: provision of female responsive learning environments and types of

programmes offered in private universities. Table 10 below provides enrolment by gender in private and public universities.

Universities	Postgraduate Diploma		Bachelor		Master		PhD		Grand Total
	Male	Female	Male	Female	Male	Female	Male	Female	
Public Universities	668	300	245,849	163,373	27,407	18,164	4,231	1828	461,820
Private Universities	272	152	32,663	33,865	5,505	4,385	684	403	77,929
Total	940	452	278,512	197,238	32,912	22,549	4,915	2,231	539,749

Table 10: Enrolment by Gender in Private and Public Universities per Programme Level

Figure 11 below shows the trends in enrolment by gender in public and private universities.

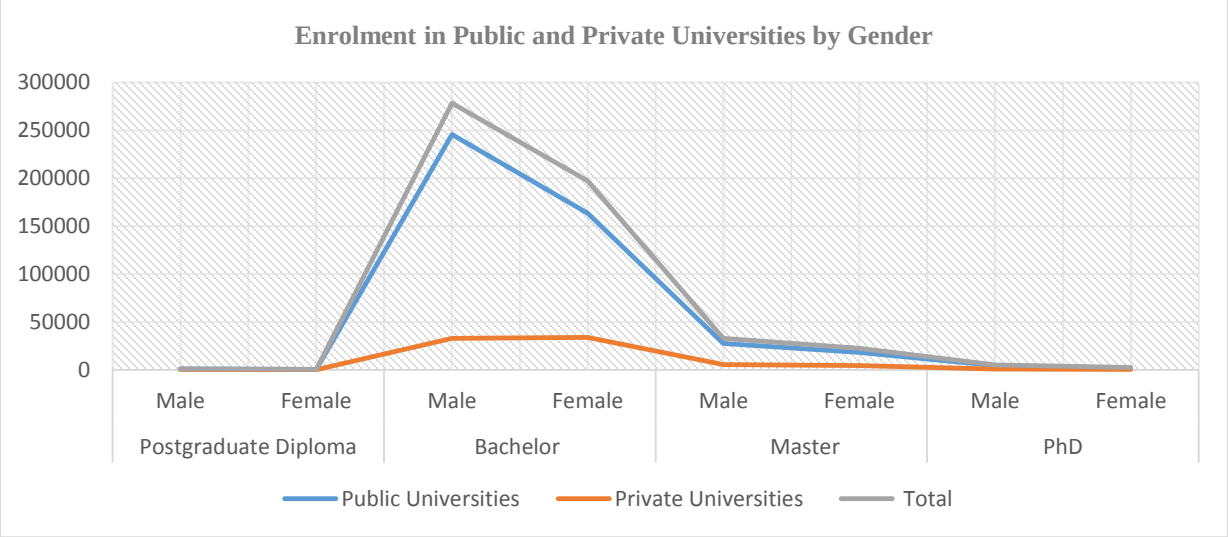

Figure 11: Enrolment in Public and Private Universities by Gender

Table 11 shows enrolment totals per programme level by gender. The total enrollment is 539,749 of which 317,280 are male and 222,469 are female, a ratio of 1.4:1. This translates to 59 per cent male and 41 per cent female. The male enrollment has increased by 122 per cent from 259,618 in 2014/15 academic year to 317,280 in 2015/16 academic year and female enrollment increased by 121 per cent from 184,164 in 2014/15 academic year to 222,469 in 2015/16 academic year. The enrollment by gender is highest for male as opposed to female in Bachelors, followed by masters, PhD and Post Graduate Diploma.

Gender	Bachelors	Post Graduate Diploma	Masters	PhD	Total	Proportion
Male	278,513	940	32,912	4,915	317,280	**59%**
Female	197,237	452	22,549	2,231	222,469	**41%**
Total	**475,750**	**1,392**	**55,461**	**7,146**	**539,749**	**100%**

Table 11: Enrolment by Gender

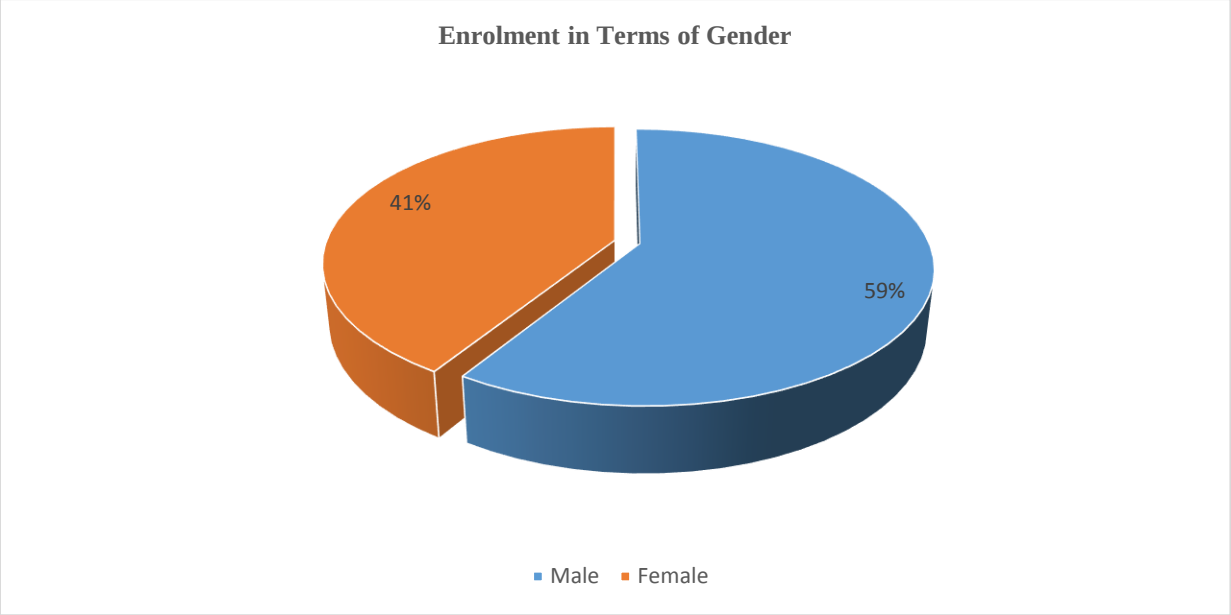

Figure 12: Enrolment by Gender

4.3 Enrolment in Public and Private Universities

The total enrollment in both public and private universities was 539,749 with the public universities taking a lead with 461,820 (86%) while private universities had a total of 77,929 (14%). This finding is in concurrence with the Economic Survey (2016) when the enrollment in the year 2014/15 academic year was highest in public universities at 363,334 as compared to private universities at 80,448. The increase is 127% for public and 99% for private universities, which is within a margin of error. The impact of the 2003 free primary education has been felt at the university level, where enrollment numbers have more than doubled between 2012 and 2015 during which the initial cohort of free primary education were enrolled in universities .

The highest enrolment was at Bachelors with 475,750 students. The lowest enrolment was at PGD at 1392 students. With regard to gender, the male enrollment was higher than the female in all the levels and in both private and public universities. Table 12 provides a summary of the enrolment in both public and private universities per programme level.

University	PGD	Bachelors	Master	PhD	Grand Total	Proportion
Public Universities	968	409,222	45,571	6,059	461,820	86%
Private Universities	424	66,528	9,890	1,087	77,929	14%
Total	1392	475,750	55,461	7,146	539,749	100%

Table 12: Enrolment in Public and Private Universities

4.4 Enrolment per Programme Level in Public and Private Universities

In terms of enrolment per academic level, Bachelors had an enrolment of 475,750 students, 55,461 Masters Students, 7,146 PhD students and 1,392 Post-graduate Diploma students. Clearly, the undergraduate students were the majority constituting 88%; followed by Masters students 10%; Doctoral 1% and Post-graduate Diploma 0%. Gender representation in all five categories, shows that male enrolments are higher than those of female students in all the four academic levels, except at the bachelors level in private universities. At this level, female enrolment was higher (33,864) than male enrolment (32,664). Table 13 shows enrolment in public and private per programme level.

Programme Level	Public Universities		Private Universities		Total	Proportion
	Male	Female	Male	Female		
Post -Graduate Diploma	668	300	272	152	1,392	0.3%
Bachelors	245,849	163,373	32,664	33,864	475,750	88.1%
Masters	27,407	18,164	5505	4385	55,461	10.3%
PhD	4,231	1,828	684	403	7,146	1.3%
Total	**278,155**	**183,665**	**39,125**	**38,804**	**539,749**	**100.0%**

Table 13: Enrolment in Public and Private Universities per Level

4.5 Enrolment per Cluster in Public and Private Universities

The Business and Administration cluster has the majority of students' enrolment totaling to 120,223 followed by Education (Arts) with 79,368 students and Humanities and Arts with 46,139 students. The cluster with the least enrolment are veterinary, manufacturing and architecture with 1,148, 2,293 and 5,057 students respectively. Table 14 shows enrolment per cluster in both public and private universities.

Cluster	Bachelors		Postgraduate Diploma		Master		PhD		Total	Proportion
	Male	Female	Male	Female	Male	Female	Male	Female		
Agriculture, Forestry and Fisheries	15,612	9,381	0	0	1,174	501	188	60	26,916	5.0%

Architecture	3,347	1,530	0	0	137	35	7	1	5,057	0.9%
Business and Administration	53,420	41,633	68	52	13,254	9,282	1,808	706	120,223	22.3%
Computing	16,265	4,660	8	8	1,146	362	144	57	22,650	4.2%
Education(Arts)	38,405	35,771	439	194	1,950	1,983	368	258	79,368	14.7%
Education (Science)	19,859	10,308	0	0	137	104	16	8	30,432	5.6%
Engineering	17,234	3,414	64	15	877	197	61	10	21,872	4.1%
Environment	4,715	3,905	2	2	632	314	184	89	9,843	1.8%
Health and Welfare	12,650	13,300	62	13	2,346	1,875	178	154	30,578	5.7%
Humanities and Arts	19,122	18,134	105	53	4,757	3,192	572	204	46,139	8.6%
Journalism and Information	6,494	6,680	0	0	568	640	146	95	14,623	2.7%
Law	3,207	3,560	0	0	194	200	0	0	7,161	1.3%
Life Science and Physical Science	21,963	10,344	34	5	1,287	597	259	80	34,569	6.4%
Manufacturing	1,932	360	0	0	1	0	0	0	2,293	0.4%
Mathematics and Statistics	9,386	4,385	43	10	551	228	152	79	14,834	2.8%
Security and Conflict resolution	3,547	1,604	0	0	452	256	26	5	5,890	1.1%
Services	3,977	4,750	0	0	244	310	29	31	9,341	1.7%
Social and Behavioral Science	18,186	15,227	6	2	2,404	1,975	412	161	38,373	7.1%
Teacher Training	2,784	2,880	82	69	495	348	185	102	6,945	1.3%
Veterinary	770	278	0	0	44	15	29	12	1,148	0.2%
Other	5,636	5,134	27	29	262	135	151	120	11,494	2.1%
Total	**278,511**	**197,238**	**940**	**452**	**32,912**	**22,549**	**4,915**	**2,232**	**539,749**	**100%**

Table 14: Enrolment per Cluster in Public and Private Universities

The Figure 13 shows the proportion of enrollment per cluster with the highest being Business and Administration (22.3%) and the lowest were Manufacturing (0.4%) and Veterinary (0.2%).

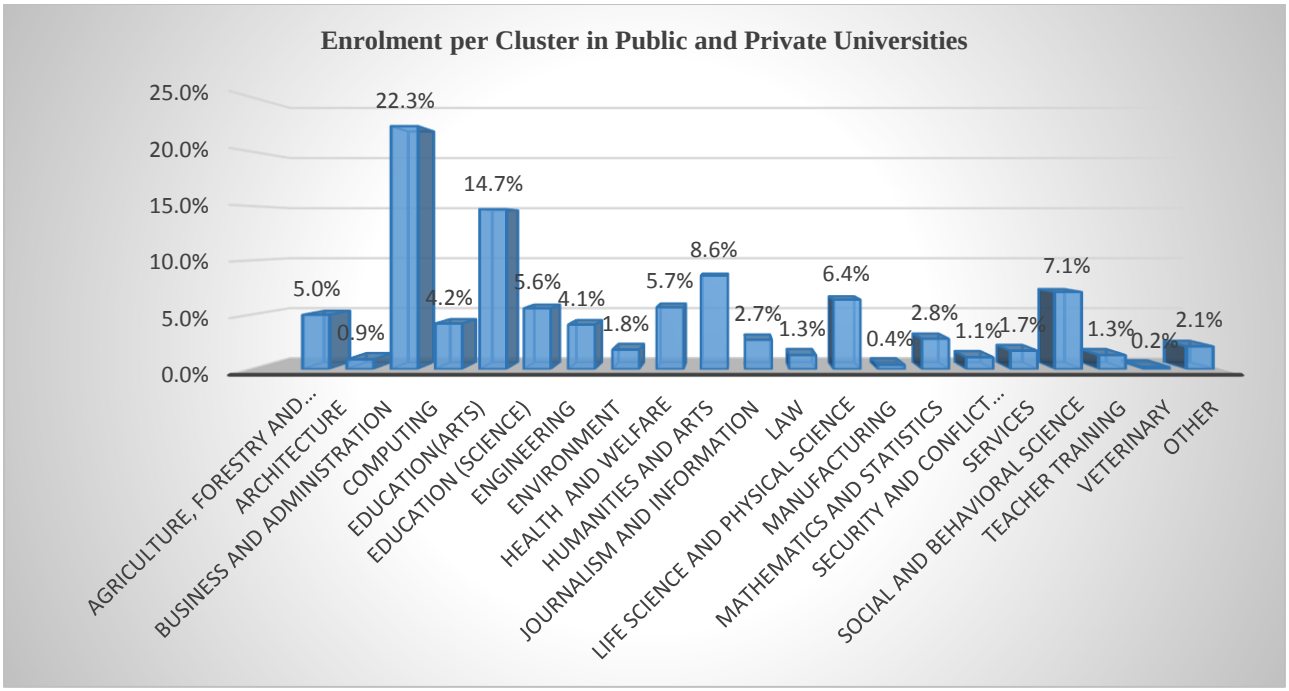

Figure 13: Enrolment in Public and Private Universities

4.6 Ratio of Male to Female Enrolment per Academic Programme Level

The overall ratio of male to female enrolment is 3:2. There are more males compared to females at PhD level giving a ratio of 2:1. At bachelors level the ratio is 3:2. More females are being enrolled at bachelor's level mainly due to the affirmative action policy. At higher academic levels there were fewer females enrolled than males. There is need to apply the affirmative action to increase enrollment. Table 15 shows the ratio of enrolment per academic programme level.

Academic Level	Male	Female	Male to Female Ratio
Bachelors	278,511	197,238	3:2
Post Graduate Diploma	940	452	2:1
Masters	32,912	22,549	3:2
PhD	4,915	2,232	2:1
Total	**317,278**	**222,471**	**3:2**

Table 15: Ratio of Male to Female Enrolment per Academic Programme Level

4.7 Academic Programmes to Students Ratio

On average the number of students per programme is 158. The most popular cluster is Law with an average of 551 students per programme, followed by Education (Science) with an average of

543 students per programme. *Other* and Business and Administration clusters each have an average enrolment of 359 and 312 students per programme respectively.

Some of the clusters with the least number of students include Veterinary, Environment, Teacher Training, and Agriculture, Forestry and Fisheries with 36, 73, 74 and 74 students per program respectively. This information is presented in Table 16.

Cluster	No. of Programmes	No. of Students	Programmes: Students
Agriculture, Forestry and Fisheries	363	26,916	1:74
Architecture	26	5,057	1:195
Business and Administration	385	120,223	1:312
Computing	163	22,650	1:139
Education (Arts)	287	79,368	1:277
Education (Science)	56	30,432	1:543
Engineering	145	21,872	1:151
Environment	134	9,843	1:73
Health and Welfare	304	30,578	1:101
Humanities and Arts	475	46,139	1:97
Journalism and Information	85	14,623	1:172
Law	13	7,161	1:551
Life Science and Physical Science	365	34,569	1:95
Manufacturing	11	2,293	1:208
Mathematics and Statistics	140	14,834	1:106
Security and Conflict resolution	50	5,890	1 : 118
Services	71	9,341	1 : 132
Social & Behavioral Science	177	38,373	1 : 217
Teacher Training	94	6,945	1 : 74
Veterinary	32	1,148	1 : 36
Other	32	11,494	1 : 359
Total	3,408	**539,749**	**1 : 158**

Table 16: Programmes to Students Ratio

Programme Level to Students Ratio

In the analysis at each programme level, the programmes to student ratio are shown in the Table 17. The ratio is higher at bachelor level at 1:292 and lowest at PhD level with a ratio of 1:14.

Programme Level	No. of Programmes	No. of Students	Programmes: Students
PGD	96	1392	1:15
Bachelors	1,632	475,749	1: 292
Masters	1,162	55,461	1:48
PhD	518	7,147	1:14

Table 17: Programmes Level to Students Ratio

4.8 Enrolment per Cluster per University Category

4.8.1 Enrolment per Cluster in Public Chartered Universities

In Public Chartered Universities at Bachelors level, the cluster with the highest enrolment is Business and Administration with 65,832 students, followed by Education (Arts) with 62,095 and Humanities and Arts with 33,030. The clusters with lowest enrolment were in Veterinary with 1,022 students; Manufacturing with 2,157 students and Law with 3,248 students.

At Master's level, the clusters with the highest enrolment were Business and Administration with 18,436 students, Humanities and Arts with 5,745 students and Health and Welfare with 3,637 students. Those with the least were manufacturing with 1 student, Veterinary with 59 students and Architecture with 172 students.

At Doctorate level, the clusters with the highest level of enrolment are Business and Administration with 2,301 students, Education Arts with 579 students and Social and Behavioral Science with 461 students. The two with the least are Law and Manufacturing with no students enrolled.

For Post-graduate Diploma program the three clusters with the highest level of enrolment are Education (Arts) with 378 students, Humanities and Arts with 129, Teacher Training with 109 students and Engineering with 79 students.

In general the clusters with the highest number of enrolment were Business and Administration with 86,643 students and that with the lowest enrolment is Veterinary with 1,122 students. Table18 shows the total enrolment of students into the different clusters in Public Chartered Universities.

Clusters	Bachelors			Postgraduate Diploma			Master			PhD			Grand Total	Proportion
	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total		
Agriculture, Forestry and Fisheries	14,623	8,738	23,361	0	0	0	1,130	491	1,621	181	52	233	25,215	5.7%
Architecture	3,347	1,530	4,877	0	0	0	137	35	172	7	1	8	5,057	1.1%
Business and Administration	38,787	27,045	65,832	48	26	74	11,057	7,379	18,436	1,678	623	2,301	86,643	19.6%
Computing	10,267	2,278	12,545	8	8	16	814	225	1,039	143	54	197	13,797	3.1%
Education (Arts)	32,524	29,571	62,095	256	122	378	1,549	1,573	3,122	347	232	579	66,174	15.0%
Education (Science)	16,774	8,417	25,191	0	0	0	137	104	241	16	8	24	25,456	5.8%
Engineering	16,530	3,321	19,851	64	15	79	877	197	1,074	61	10	71	21,075	4.8%
Environment	4,490	3,623	8,113	2	2	4	620	305	925	183	89	272	9,314	2.1%
Health &Welfare	10,076	9,413	19,489	62	13	75	2,045	1,592	3,637	174	149	323	23,524	5.3%
Humanities & Arts	16,415	16,615	33,030	85	44	129	3,174	2,571	5,745	301	136	437	39,341	8.9%
Journalism and Information	5,262	4,465	9,727	0	0	0	417	399	816	127	80	207	10,750	2.4%
Law	1,605	1,643	3,248	0	0	0	194	200	394	0	0	0	3,642	0.8%

Life Science & Physical Science	21,359	9,946	31,305	34	5	39	1,277	593	1,870	252	79	331	33,545	7.6%
Manufacturing	1,833	324	2,157	0	0	0	1	0	1	0	0	0	2,158	0.5%
Mathematics & Statistics	8,451	3,909	12,360	43	10	53	533	219	752	145	75	220	13,385	3.0%
Security and Conflict resolution	3,270	1,235	4,505	0	0	0	366	181	547	26	5	31	5,083	1.2%
Services	3,735	4,291	8,026	0	0	0	244	310	554	29	31	60	8,640	2.0%
Social & Behavioral Science	16,650	12,546	29,196	6	2	8	2,043	1,399	3,442	366	95	461	33,107	7.5%
Teacher Training	2,423	2,151	4,574	57	52	109	381	151	532	98	63	161	5,376	1.2%
Veterinary	745	277	1,022	0	0	0	44	15	59	29	12	41	1,122	0.3%
Other	5063	4889	9952	0	0	0	189	93	282	3	0	3	10237	2.3%
Total	234,229	156,227	390,456	665	299	964	27,229	18,032	45,261	4,166	1794	5,960	442,641	100%

Table 18: Enrolment per Cluster in Public Chartered Universities

Figure 14 shows the proportion of enrolment per cluster in Public Chartered Universities with Business Administration having the highest proportion at 19.6%, followed by Education Arts at 15%. The lowest enrolment was recorded in the cluster of Manufacturing and Veterinary at 0.5% and 0.3%.

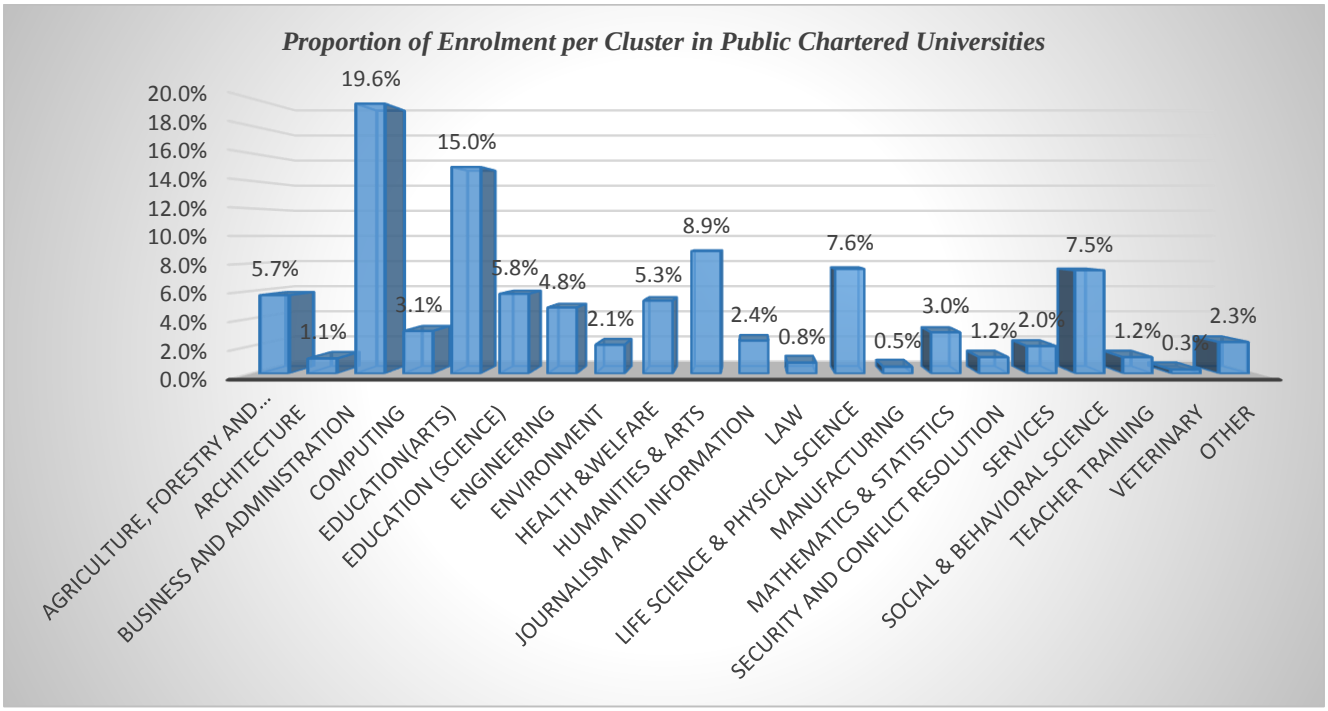

Figure 14: Proportion Enrolment per Cluster in Public Chartered Universities

The ratio of males to females in public chartered universities is 3:2. At both bachelors and masters level the ratio is 3:2. The PhD level has fewer females than males with a ratio of 2:1. Table 19 shows the ratio of male to female graduation.

Academic Level	Male	Female	Male to Female Ratio
Bachelors	234,229	156,227	3:2
Post Graduate Diploma	665	299	2:1

Masters	27,229	18,032	3:2
PhD	4,166	1794	2:1
Total	**266,289**	**176,352**	**3:2**

Table 19: Male to Female Ratio in Public Chartered Universities Graduation???

4.8.2 Enrolment per Cluster in Public University Constituent Colleges

At bachelors level the clusters with the highest enrolment level are Business and Administration with 6,550 students, Education (Arts) with 2,986 students, Agriculture, Forestry and Fisheries with 1,417 students. Architecture and Veterinary are not offered in public university constituent colleges.

At the master's level, Business and Administration has the highest enrolment at 118 students, followed by Teacher Training with 55 students and Humanities and Arts with 54 students. The other clusters in which students are enrolled at this level are: Education (Arts) with 24 students, Journalism and Information with 23 students, Social and Behavioral sciences with 11 students, Agriculture, Forestry and Fisheries with 10 students, Life Science& Physical Science with 7 students, Computing with 6 students and Environment with 2 students. The remaining clusters have no enrolment.

At PhD level Business and Administration has the highest enrolment with 20 students, Teacher Training with 48 students and Life Science and Physical science with 8 students. The other clusters with enrolments are Journalism and Information with 7 students, Agriculture, Forestry and Fisheries with 6 students, Humanities and Arts with 5 students and environment with 1 student. The remaining clusters have no enrolment. At the Post-graduate diploma level, Education (Arts) is the only cluster with an enrolment of 4 students. Generally in public university constituent colleges, Business and Administration cluster has the highest enrolment of 6,688 students. Table 20 shows the enrolment per cluster in public universities constituent colleges.

Cluster	Bachelors			Post Graduate Diploma			Master			PhD			Grand Total	Proportion
	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total		
Agriculture, Forestry and Fisheries	842	575	1,417	0	0	0	5	5	10	2	4	6	1,433	7.5%
Architecture	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0%
Business and Administration	3,872	2,678	6,550	0	0	0	64	54	118	14	6	20	6,688	34.9%
Computing	1,086	248	1,334	0	0	0	4	2	6	0	0	0	1,340	7.0%

Education (Arts)	1,587	1,399	2,986	3	1	4	18	6	24	0	0	0	3,014	15.7%
Education (Science)	969	347	1,316	0	0	0	0	0	0	0	0	0	1,316	6.9%
Engineering	558	77	635	0	0	0	0	0	0	0	0	0	635	3.3%
Environment	141	129	270	0	0	0	1	1	2	1	0	1	273	1.4%
Health and Welfare	35	40	75	0	0	0	0	0	0	0	0	0	75	0.4%
Humanities and Arts	406	373	779	0	0	0	33	21	54	1	4	5	838	4.4%
Journalism and Information	317	201	518	0	0	0	12	11	23	4	3	7	548	2.9%
Law	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0%
Life Science and Physical Science	542	283	825	0	0	0	6	1	7	7	1	8	840	4.4%
Manufacturing	99	33	132	0	0	0	0	0	0	0	0	0	132	0.7%
Mathematics and Statistics	752	259	1,011	0	0	0	0	0	0	0	0	0	1,011	5.3%
Security and Conflict resolution	33	10	43	0	0	0	0	0	0	0	0	0	43	0.2%
Services	120	174	294	0	0	0	0	0	0	0	0	0	294	1.5%
Social and Behavioural Science	202	167	369	0	0	0	7	4	11	4	0	4	384	2.0%
Teacher Training	54	140	194	0	0	0	28	27	55	32	16	48	297	1.6%
Veterinary	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0%
Other	5	13	18	0	0	0	0	0	0	0	0	0	18	0.1%
Total	11,620	7,146	18,766	3	1	4	178	132	310	65	34	99	19,179	100%

Table 20: Enrolment per Cluster in Public University Constituent Colleges

Figure 15 shows enrolment per cluster in public universities constituent colleges. Business and Administration has the highest enrolment at 34.9% of the total enrolment. This is followed by Education (Arts) at 15.7%. This is shown in Figure 15.

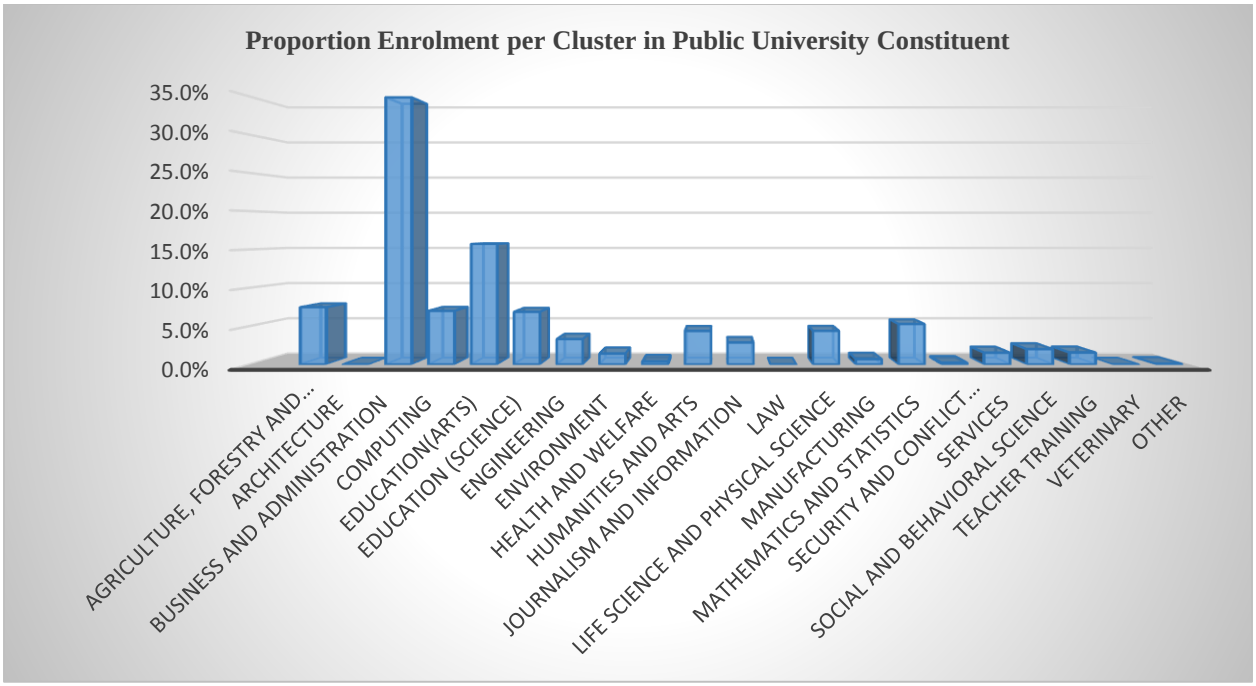

Figure 15: Proportion Enrolment per Cluster in Public University Constituent Colleges

In public university constituent colleges, the ratio of males to females is 3:2. At bachelors level, more males were enrolled compared to females giving a ratio of 3:2. At master's level, the ratio of male to females was 3:2 almost achieving Gender parity. The PhD level, enrolment of male students was double that of females with a ratio of 2:1.

Academic Level	Male	Female	Male to female ratio
Bachelors	11,620	7,146	**3:2**
Post Graduate Diploma	3	1	**3:1**
Masters	178	132	**3:2**
PhD	65	34	**2:1**
Total	**11,866**	**7,313**	**3:2**

Table 21: Male to Female Students Ratio in Public University Constituent Colleges

4.8.3 Enrolment per Cluster in Private Chartered Universities

At Bachelor's level, the clusters with the highest enrolment level are Business and Administration with 20,111 students, Education (Arts) with 8,524 students and Computing with 6,724 students. The clusters with the lowest enrolment are Architecture with no students, Manufacturing with 3 students and Veterinary with 26 students.

At Master's level, the clusters with the highest enrolment are Business and Administration with 3,973 students, Humanities and Arts with 1,720 students and Education Arts with 787 students.

Architecture, Education (Science), Engineering, Law, Manufacturing, Services, Veterinary and 'other' did not have enrolled students.

At PhD level, the clusters with the highest level of enrolment are Humanities and Arts with 320 students, 'others' with 243 students and Business and Administration with 142 students. The following clusters do not have any students enrolled: Architecture, Education (Science), Engineering, Law, Manufacturing, Services, Veterinary, Environment, Life Science& Physical Science, and Security and Conflict resolution.

At Post-graduate diploma level, only three clusters have enrolments. These are: Education (Arts) with 251 students, Teacher Training with 41 students and Humanities and Arts with 29. The remaining clusters do not have enrolments. In general, the cluster with the highest number of enrolment is Business and Administration with 24,226 students. Table 22 gives a summary of enrolments in private chartered universities.

Cluster	Bachelors			Postgraduate Diploma			Master			PhD			Grand Total	Proportion
	M	F	T	M	F	T	M	F	T	M	F	T		
Agriculture, Forestry and Fisheries	147	68	215	0	0	0	39	5	44	5	3	8	**267**	**0.4%**
Business and Administration	9,787	10,324	20111	0	0	0	2,126	1,847	3973	84	58	142	**24,226**	**34.0%**
Computing	4,691	2,033	6724	0	0	0	328	135	463	1	3	4	**7191**	**10.1%**
Education(Arts)	3,994	4,530	8524	180	71	251	383	404	787	21	26	47	**9609**	**13.5%**
Education (Science)	2,108	1,541	3649	0	0	0	0	0	0	0	0	0	**3649**	**5.1%**
Engineering	146	16	162	0	0	0	0	0	0	0	0	0	**162**	**0.2%**
Environment	84	153	237	0	0	0	11	8	19	0	0	0	**256**	**0.4%**
Health &Welfare	2,322	3,568	5890	0	0	0	246	243	489	4	5	9	**6388**	**9.0%**
Humanities & Arts	1,571	1,024	2595	20	9	29	1,235	485	1720	257	63	320	**4664**	**6.6%**
Journalism and Information	896	1,978	2874	0	0	0	139	230	369	15	12	27	**3270**	**4.6%**
Law	1,502	1,806	3308	0	0	0	0	0	0	0	0	0	**3308**	**4.7%**
Life Science& Physical Science	62	115	177	0	0	0	4	3	7	0	0	0	**184**	**0.3%**
Manufacturing	0	3	3	0	0	0	0	0	0	0	0	0	**3**	**0.0%**
Mathematics & Statistics	183	141	324	0	0	0	18	9	27	7	4	11	**362**	**0.5%**
Security and Conflict resolution	243	358	601	0	0	0	86	75	161	0	0	0	**762**	**1.1%**
Services	91	229	320	0	0	0	0	0	0	0	0	0	**320**	**0.5%**
Social& Behavioural Science	1,282	2,395	3677	0	0	0	331	527	858	42	66	108	**4643**	**6.5%**
Teacher Training	306	585	891	25	17	42	86	170	256	55	23	78	**1267**	**1.8%**
Veterinary	25	1	26	0	0	0	0	0	0	0	0	0	**26**	**0.0%**

Other	213	103	316	0	0	0	37	25	62	127	116	243	**621**	**0.9%**
Total	**29,653**	**30,971**	**60,624**	**225**	**97**	**322**	**5,069**	**4,166**	**9,235**	**618**	**379**	**997**	**71,178**	**100%**

Table 22: Enrolment per Cluster in Private Chartered Universities

Figure 16 shows enrolment per cluster in private chartered universities. Business and Administration account for 34% of total enrolment, followed by Education (Arts) at 13.5%.

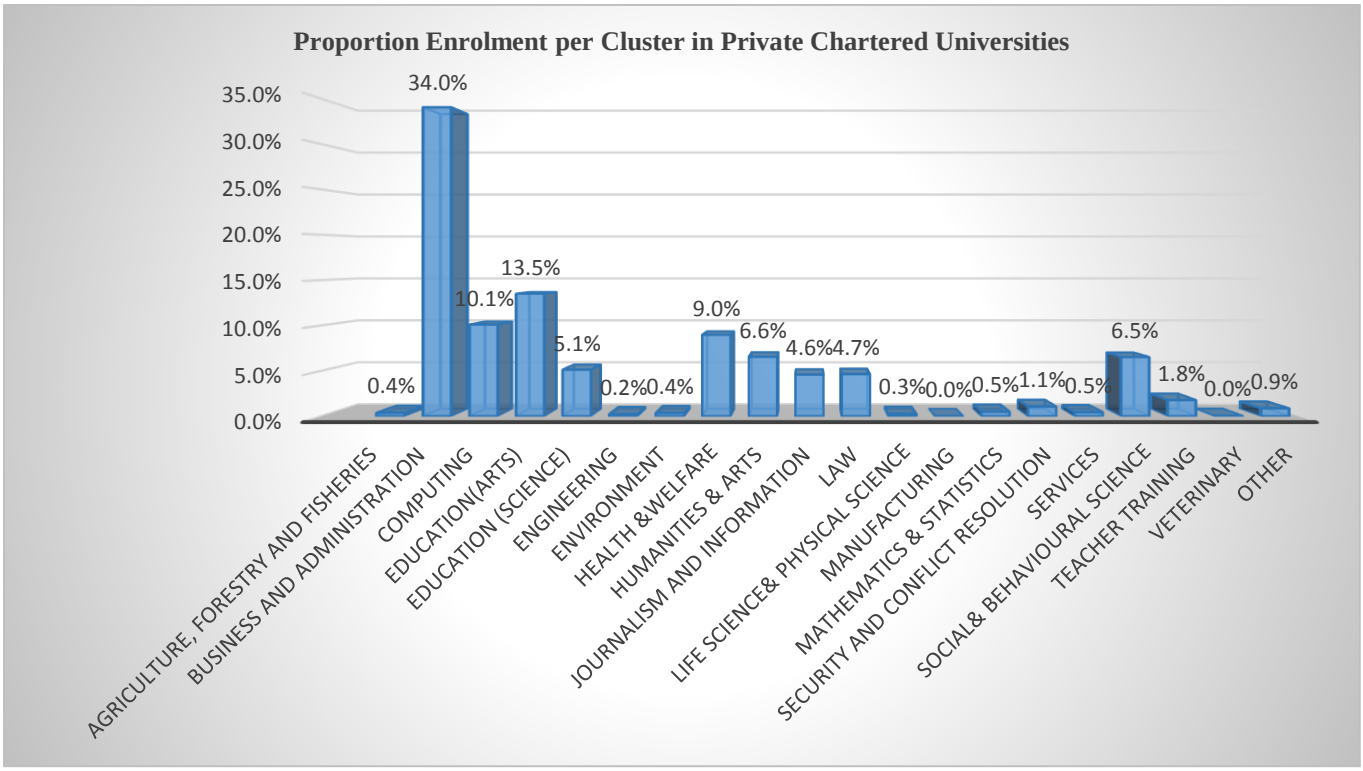

Figure 16: Proportion Enrolment per Cluster in Private Chartered Universities

In private chartered universities, the overall ratio of male to female was at parity with bachelor's level and master having a ratio of 1:1 and PhD level with a ratio of 3:2 as shown in Table 23. Private chartered universities attract more females in their programmes compared to public universities.

Academic Level	Male	Female	Male to Female Ratio
Bachelors	29,653	30,971	1:1
Post-Graduate Diploma	225	97	2:1
Masters	5,069	4,166	1:1
PhD	618	379	3:2
Total	**35,565**	**35,613**	**1:1**

Table 23: Male to Female Students Ratio in Private Chartered Universities

4.8.4 Enrolment per Cluster in Private University Constituent Colleges

At Bachelors level, the following clusters had enrolments as follow: Humanities and Arts with 643 students, Health and Welfare with 380 students, Education (Arts) with 271 students, Business and Administration with 73 students and Journalism and Information with 52 students. The other clusters had no enrolments. At master's level, only Humanities and Arts had enrollment with 60 students. Private university constituent colleges had no enrolment at the PhD and Post-graduate levels. In general Humanities and Arts had the highest enrolment at 703 students. Table 24 shows the total enrolment per cluster in private university constituent colleges.

Cluster	Bachelors			Postgraduate Diploma			Master			PhD			Grand Total	Proportion
	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total		
Agriculture, forestry and fisheries	0	0	0	0	0	0	0	0	0	0	0	0	**0**	**0%**
Architecture	0	0	0	0	0	0	0	0	0	0	0	0	**0**	**0%**
Business and Administration	40	33	73	0	0	0	0	0	0	0	0	0	**73**	**5%**
Computing	0	0	0	0	0	0	0	0	0	0	0	0	**0**	**0%**
Education(Arts)	154	117	271	0	0	0	0	0	0	0	0	0	**271**	**17%**
Education (Science)	0	0	0	0	0	0	0	0	0	0	0	0	**0**	**0%**
Engineering	0	0	0	0	0	0	0	0	0	0	0	0	**0**	**0%**
Environment	0	0	0	0	0	0	0	0	0	0	0	0	**0**	**0%**
Health &Welfare	199	181	380	0	0	0	0	0	0	0	0	0	**380**	**24%**
Humanities & Arts	584	59	643	0	0	0	38	22	60	0	0	0	**703**	**44%**
Journalism and Information	18	34	52	0	0	0	0	0	0	0	0	0	**52**	**3%**
Law	0	0	0	0	0	0	0	0	0	0	0	0	**0**	**0%**
Life Science& Physical Science	0	0	0	0	0	0	0	0	0	0	0	0	**0**	**0%**
Manufacturing	0	0	0	0	0	0	0	0	0	0	0	0	**0**	**0%**
Mathematics & Statistics	0	0	0	0	0	0	0	0	0	0	0	0	**0**	**0%**
Security and Conflict resolution	0	0	0	0	0	0	0	0	0	0	0	0	**0**	**0%**
Services	0	0	0	0	0	0	0	0	0	0	0	0	**0**	**0%**
Social& Behavioral Science	40	84	124	0	0	0	0	0	0	0	0	0	**124**	**8%**
Teacher Training	0	0	0	0	0	0	0	0	0	0	0	0	**0**	**0%**
Veterinary	0	0	0	0	0	0	0	0	0	0	0	0	**0**	**0%**
Other	0	0	0	0	0	0	0	0	0	0	0	0	**0**	**0%**
Total	**1,035**	**508**	**1,543**	**0**	**0**	**0**	**38**	**22**	**60**	**0**	**0**	**0**	**1,603**	**100%**

Table 24: Enrolment per Cluster in Private University Constituent Colleges

Figure 17 shows the proportion per cluster in private university constituent colleges. Humanities and Arts account for the highest proportion of 44%, followed by Health and Welfare (24%). Most

of the programmes within the clusters were not being offered in private university constituent colleges.

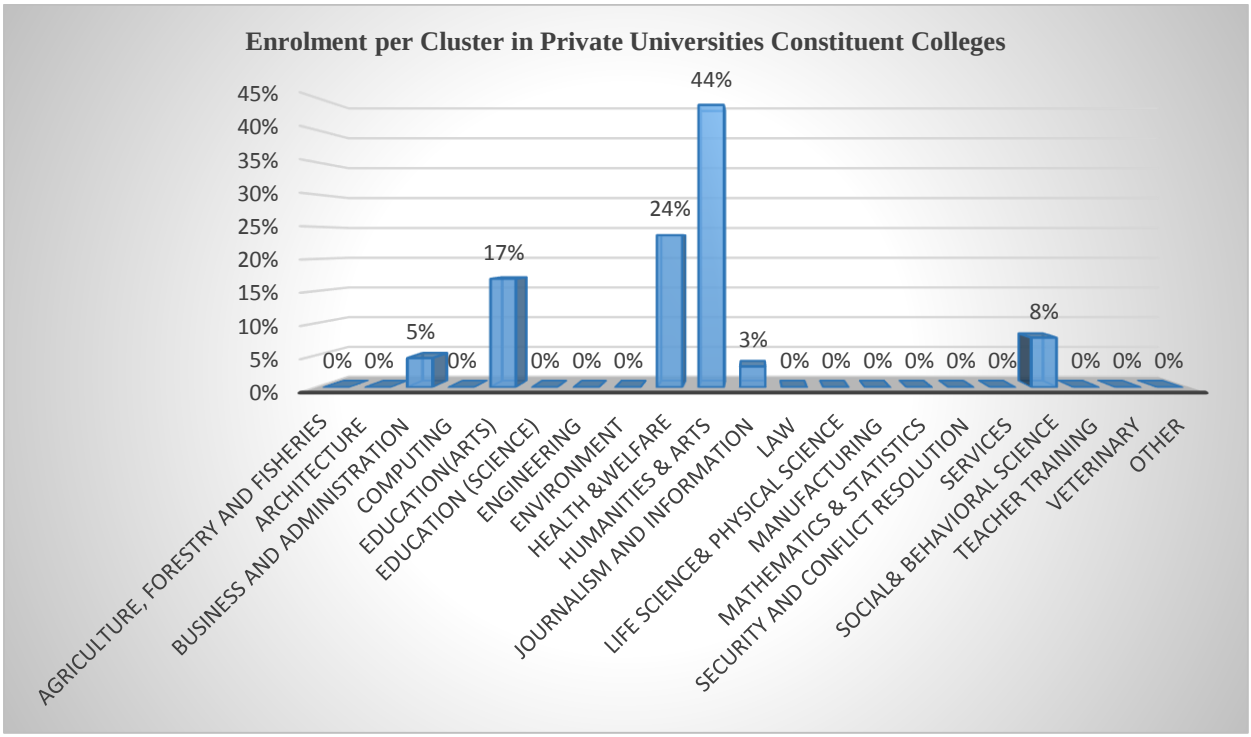

Figure 17: Proportion of Enrolment per Cluster in Private University Constituent Colleges

The number of male enrolment doubled that of females in private university constituent colleges with a ratio of 2:1. At bachelors and PhD levels, male enrolments doubled that of female as shown in Table 25.

Programme Level	Male	Female	Male to Female Ratio
Bachelors	1,035	508	2:1
Post Graduate Diploma	0	0	-
Masters	38	22	2:1
PhD	0	0	-
Total	**1,073**	**530**	**2:1**

Table 25: Male to Female Students Ratio in Private University Constituent Colleges

4.8.5 Enrolment per Cluster in Institutions with Letter of Interim Authority (LIA)

At bachelor's level, the three clusters with the highest enrolment level are Business and Administration with 2,480 students, Computing with 322 students, Education (Arts) with 301.The cluster with the lowest enrolment is Mathematics and Statistics, and Services at 76 and 87 students

respectively. A majority of the clusters did not have enrolments including Agriculture, Forestry and Fisheries, Architecture, Education(Arts), Engineering, Environment, Life Science and Physical Science, Manufacturing, Security and Conflict Resolution , Teacher Training and Veterinary.

At master's level, only four clusters had enrolments. These are Humanities and Arts with 367 students, Health and Welfare with 95 students, Social and Behavioral Science with 68 students and Business and Administration with 9 students. At PhD level, only three clusters had enrolments namely: Business and Administration with 51 students, *other* with 25 students and Humanities and Arts with 14 students. There were no enrolments in Post-graduate diploma programme. Overall, the cluster with the highest number of enrolment was Business and Administration with 2,586. Table 26 shows the enrolments per cluster in private universities with Letters of Interim Authority.

Cluster	Bachelors			Postgraduate Diploma			Master			PhD				Proportion
	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total	Grand Total	
Architecture	0	0	0	0	0	0	0	0	0	0	0	0	**0**	**0%**
Business and Administration	933	1,547	2,480	20	26	46	7	2	9	32	19	51	**2,586**	**53%**
Computing	221	101	322	0	0	0	0	0	0	0	0	0	**322**	**7%**
Education(Arts)	147	154	301	0	0	0	0	0	0	0	0	0	**301**	**6%**
Education (Science)	8	3	11	0	0	0	0	0	0	0	0	0	**11**	**0%**
Engineering	0	0	0	0	0	0	0	0	0	0	0	0	**0**	**0%**
Environment	0	0	0	0	0	0	0	0	0	0	0	0	**0**	**0%**
Health and Welfare	18	98	116	0	0	0	55	40	95	0	0	0	**211**	**4%**
Humanities and Arts	144	63	207	0	0	0	275	92	367	13	1	14	**588**	**12%**
Journalism and Information	0	0	0	0	0	0	0	0	0	0	0	0	**0**	**0%**
Law	100	111	211	0	0	0	0	0	0	0	0	0	**211**	**4%**
Life Science and Physical Science	0	0	0	0	0	0	0	0	0	0	0	0	**0**	**0%**
Manufacturing	0	0	0	0	0	0	0	0	0	0	0	0	**0**	**0%**
Mathematics and Statistics	0	76	76	0	0	0	0	0	0	0	0	0	**76**	**2%**
Security and Conflict resolution	0	0	0	0	0	0	0	0	0	0	0	0	**0**	**0%**
Services	31	56	87	0	0	0	0	0	0	0	0	0	**87**	**2%**
Social and Behavioral Science	11	31	42	0	0	0	23	45	68	0	0	0	**110**	**2%**
Teacher Training	0	0	0	0	0	0	0	0	0	0	0	0	**0**	**0%**
Veterinary	0	0	0	0	0	0	0	0	0	0	0	0	**0**	**0%**
Other	187	70	257	27	29	56	0	0	0	21	4	25	**338**	**7%**
Total	**1,800**	**2,310**	**4,110**	**47**	**55**	**102**	**360**	**179**	**539**	**66**	**24**	**90**	**4,841**	**100%**

Table 26: Enrolment per Cluster in Private Universities with Letters of Interim Authority

Figure 18 presents enrolment in private universities with Letters of Interim Authority. Business and Administration account for the highest enrolment with 53%, followed by Humanities and Arts with 12%. Most programmes within the clusters did not have enrollment.

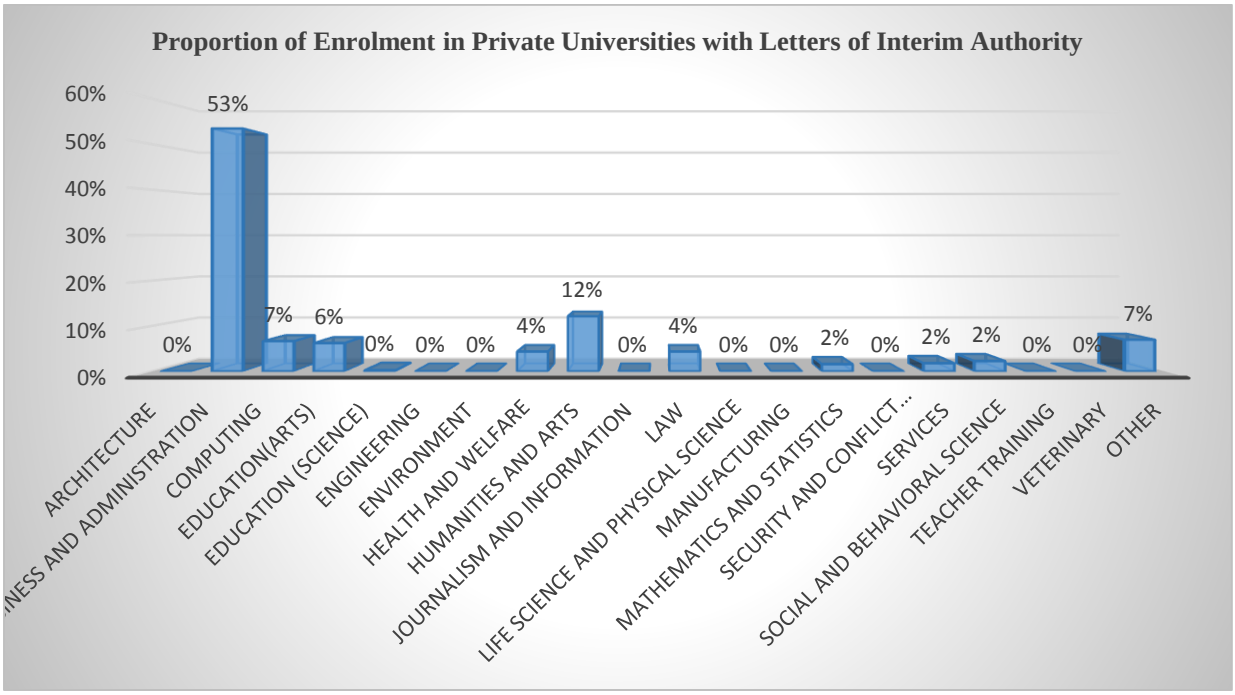

Figure 18: Proportion of Enrolment in Private Universities with Letters of Interim Authority

The overall enrolment of students in private universities with Letters of Interim Authority was at gender parity. At masters and PhD levels, there were more males than females with a ratio of 2:1 and 3:1 respectively. Table 27 shows the ratio of enrolment between male and female in private universities with LIA.

Academic Level	Male	Female	Female to Male Ratio
Bachelors	1,800	2,310	1:1
Post Graduate Diploma	47	55	1:1
Masters	360	179	2:1
PhD	66	24	3:1
Total	**2,273**	**2,568**	**1:1**

Table 27: Male to Female Students Ratio in Private Universities with LIA

4.8.6 Enrolment per Cluster in Registered Private universities

KAG is the only registered private university. At Bachelors level, the highest enrolment was in *Other* cluster with 227 students. This was followed by Business and Administration with 7 students, Social & Behavioral Science and Teacher Training each with 5 students.

At master's level, only two clusters had enrolments: *Other* with 53 students and Humanities and Arts with 3 students. At PhD and Post-graduate levels, there was no enrolment. Table 28 shows enrolment per cluster in registered private universities.

Clusters	Bachelors			Postgraduate Diploma			Master			PhD			Grand Total	Proportion
	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total		
Architecture	0	0	0	0	0	0	0	0	0	0	0	0	**0**	**0%**
Business and Administration	1	6	7	0	0	0	0	0	0	0	0	0	**7**	**2%**
Computing	0	0	0	0	0	0	0	0	0	0	0	0	**0**	**0%**
Education(Arts)	0	0	0	0	0	0	0	0	0	0	0	0	**0**	**0%**
Education (Science)	0	0	0	0	0	0	0	0	0	0	0	0	**0**	**0%**
Engineering	0	0	0	0	0	0	0	0	0	0	0	0	**0**	**0%**
Environment	0	0	0	0	0	0	0	0	0	0	0	0	**0**	**0%**
Health and Welfare	0	0	0	0	0	0	0	0	0	0	0	0	**0**	**0%**
Humanities & Arts	2	0	2	0	0	0	2	1	3	0	0	0	**5**	**2%**
Journalism and Information	1	2	3	0	0	0	0	0	0	0	0	0	**3**	**1%**
Law	0	0	0	0	0	0	0	0	0	0	0	0	**0**	**0%**
Life Science and Physical Science	0	0	0	0	0	0	0	0	0	0	0	0	**0**	**0%**
Manufacturing	0	0	0	0	0	0	0	0	0	0	0	0	**0**	**0%**
Mathematics and Statistics	0	0	0	0	0	0	0	0	0	0	0	0	**0**	**0%**
Security and Conflict resolution	1	1	2	0	0	0	0	0	0	0	0	0	**2**	**1%**
Services	0	0	0	0	0	0	0	0	0	0	0	0	**0**	**0%**
Social and Behavioral Science	1	4	5	0	0	0	0	0	0	0	0	0	**5**	**2%**
Teacher Training	1	4	5	0	0	0	0	0	0	0	0	0	**5**	**2%**
Veterinary	0	0	0	0	0	0	0	0	0	0	0	0	**0**	**0%**
Other	168	59	227	0	0	0	36	17	53	0	0	0	**280**	**91%**
Total	**175**	**76**	**251**	**0**	**0**	**0**	**38**	**18**	**56**	**0**	**0**	**0**	**307**	**100%**

Table 28: Enrolment in Registered Private Universities

Figure 19 shows the proportion of enrolment in registered private universities with a 91% enrolment in *Other* cluster.

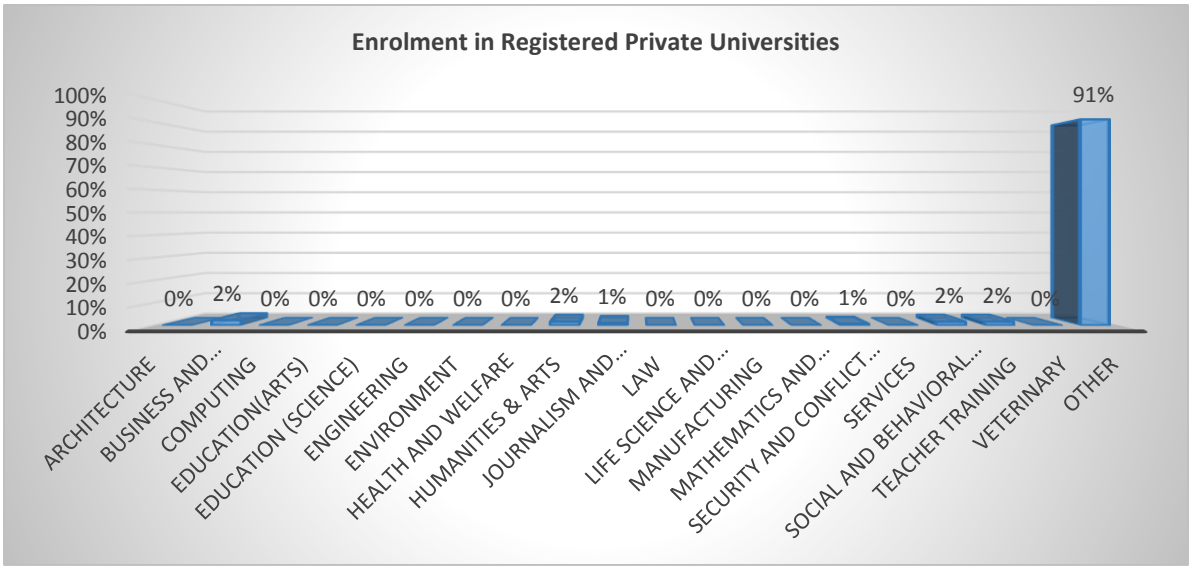

Figure 19: Proportion of Enrolments in Registered Private Universities

KAG University which is the only registered private university has double the number of male enrolment compared to females. This is shown in Table 29.

Academic Level	Male	Female	Male to Female Ratio
Bachelors	175	76	2:1
Post Graduate Diploma	0	0	-
Masters	38	18	2:1
PhD	0	0	-
Total	**213**	**94**	**2:1**

Table 29: Male to Female Students Ratio in Registered Private Universities

4.9 Summary of Enrolment of students per University Category

Public chartered universities had the highest number of enrolment of 442,641. Private chartered universities had 71,178 students, public university constituent colleges had 19,179 students, private universities with Letters of Interim Authority had 4,841 and private university constituent colleges with 1,603 students. The least enrolment is recorded in registered private universities with 307 students. This is presented in Table 30.

In terms of proportions, public chartered universities account for 82.0% of the total enrolment, private chartered universities 13%, public university constituent colleges 3.6%, private universities

with Letters of Interim Authority 0.9% and registered private universities (0.1%) as shown in Figure 20.

University Category	Bachelors			Postgraduate Diploma			Master			PhD			Grand Total	Proportion
	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total		
Public Chartered Universities	234,229	156,227	390,456	665	299	964	27,229	18,032	45,261	4,166	1,794	5,960	442,641	**82.0%**
Public Universities Constituent Colleges	11,620	7,146	18,766	3	1	4	178	132	310	65	34	99	19,179	**3.6%**
Private Chartered Universities	29,653	30,971	60,624	225	97	322	5,069	4,166	9,235	618	379	997	71,178	**13.2%**
Private Universities Constituent Colleges	1,035	508	1,543	0	0	0	38	22	60	0	0	0	1,603	**0.3%**
Private Universities with Letters of Interim Authority	1,800	2,310	4,110	47	55	102	360	179	539	66	24	90	4,841	**0.9%**
Registered Private Universities	175	76	251	0	0	0	38	18	56	0	0	0	307	**0.1%**
Total	**278,512**	**197,238**	**475,750**	**940**	**452**	**1,392**	**32,912**	**22,549**	**55,461**	**4,915**	**2,231**	**7,146**	**539,749**	**100%**

Table 30: Summary of Enrolments per University Category

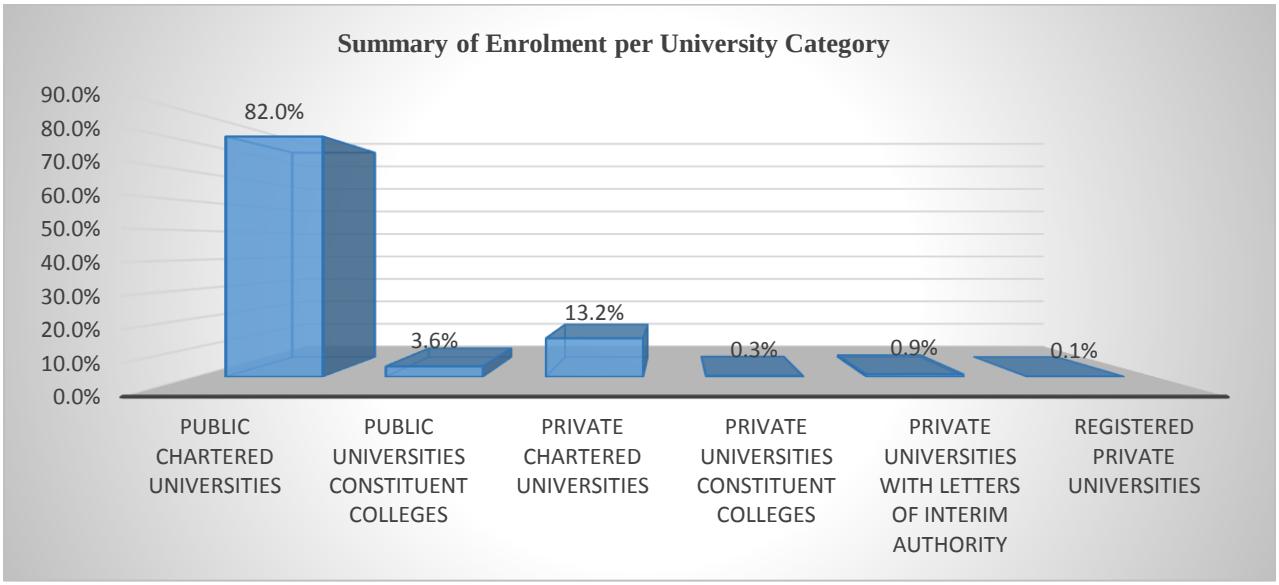

Figure 20: Summary of Enrolment per University Category

4.10 Enrolment of International Students

There are a total of 4,782 international students enrolled in universities in Kenya. Private universities had the highest enrolment of international students at 3,873. Public universities had only 909 international students. Majority of international students were undertaking bachelor's

degree with 3,218 students, followed by masters with 1,227. Table 31 shows the number of international students enrolled in universities.

University	Post Graduate Diploma			Bachelors			Master			PhD			Grand Total
	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total	
Public Universities	98	35	133	275	58	333	248	162	410	24	9	33	**909**
Private Universities	26	7	33	1,761	1,124	2,885	661	156	817	127	11	138	**3,873**
Total	**124**	**42**	**166**	**2,036**	**1,182**	**3,218**	**909**	**318**	**1,227**	**151**	**20**	**171**	**4,782**

Table 31: International Students' Enrolment

Figure 21 shows the regions of origin of international students, 52% come from the rest of Africa, 30% come from East Africa, 10% did not specify their nationalities and 8% come from outside Africa.

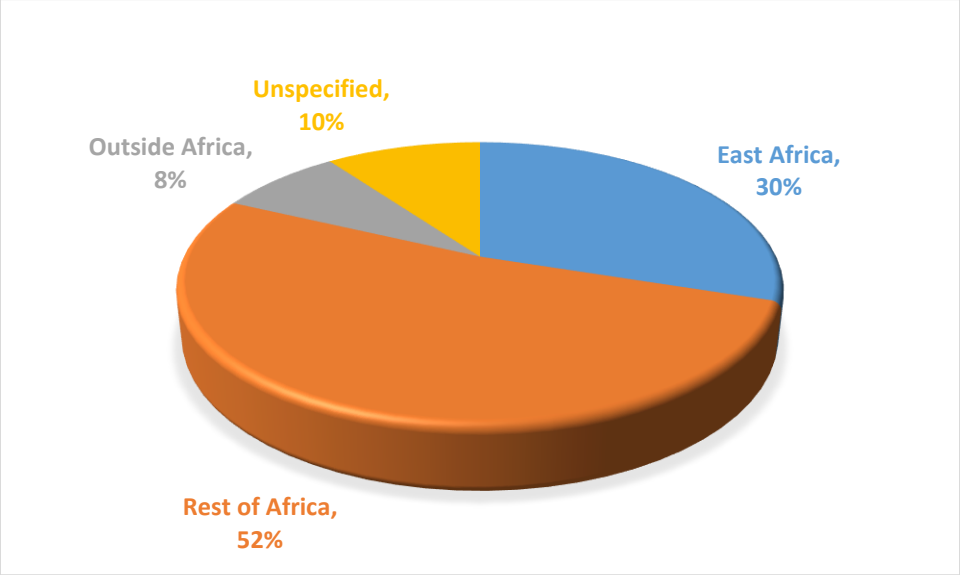

Figure 21: Origin of International Students

4.11 Enrolment of Students with Disability

The total number of students with disabilities in the universities was 645. Majority of students had physical disability, followed by visual disability and hearing disability Table 32 shows enrolment of students with disability in the universities.

Category	Public Universities			Private Universities			Grand Total
	Male	Female	Total	Male	Female	Total	
Sensory Impairment	2	1	**3**	0	0	**0**	**3**
Mental Impairment	4	2	**6**	0	1	**1**	**7**
Visual Impairment	131	79	**210**	5	9	**14**	**224**
Hearing Impairment	35	11	**46**	10	0	**10**	**56**
Learning Impairment	0	1	**1**	1	0	**1**	**2**
Physical Impairment	166	91	**257**	40	34	**74**	**331**
Others	10	7	**17**	1	4	**5**	**22**
Grand Total	**348**	**192**	**540**	**57**	**48**	**105**	**645**

Table 32: Enrolment of Students with Disability

Chapter Five

Universities Academic Staff

1.1 Introduction

This chapter presents information on academic staff by qualifications in public and private universities and the various university categories. Academic staff qualification are categorized into: PhDs, master, bachelors and diploma.

1.2 Academic Staff by Gender in Universities

The total academic staff was established to be 16,318 with 74% in public universities while 26% were in private universities. This is indicated in the Figure 22. Compared to Ghana (Public 84% and Private 16%), a similar African Country, Kenya seems to have a more developed private university sector (Tettey, 2010, p.30).

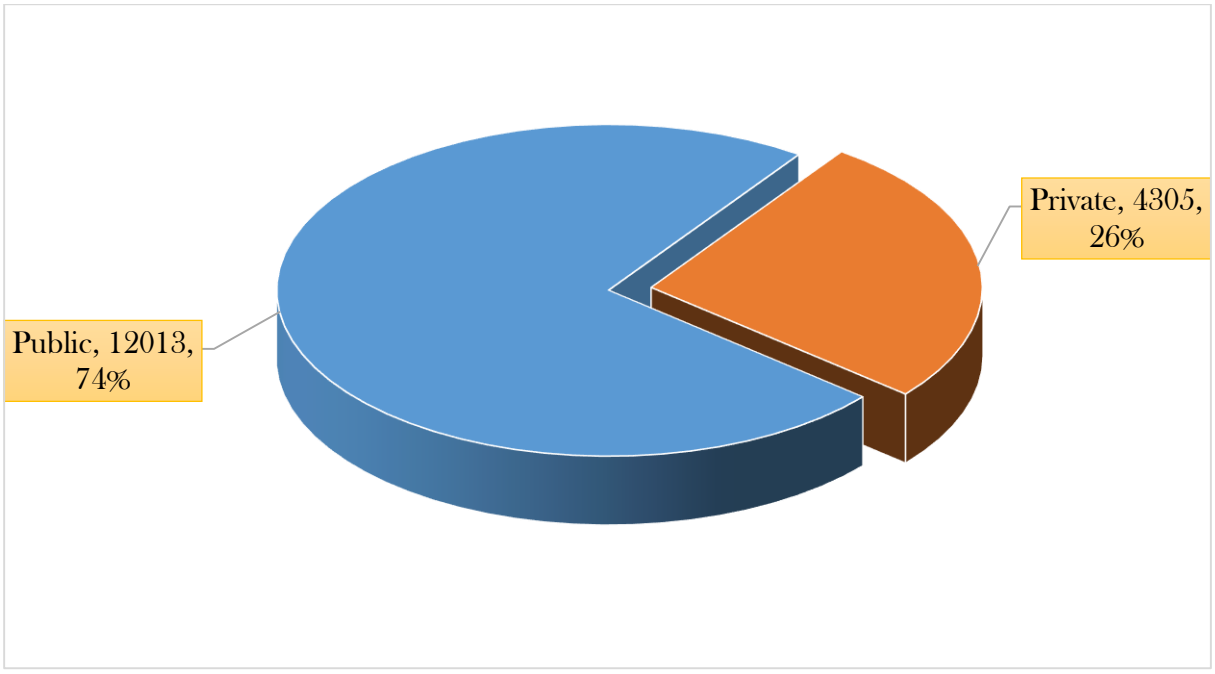

Figure 22: Academic Staff in Public and Private Universities

In terms of gender 68% were male while female accounted for 32%. These comparable statistics resonate well with the policy of at least one-third gender rule. Figure 23 reflects this information.

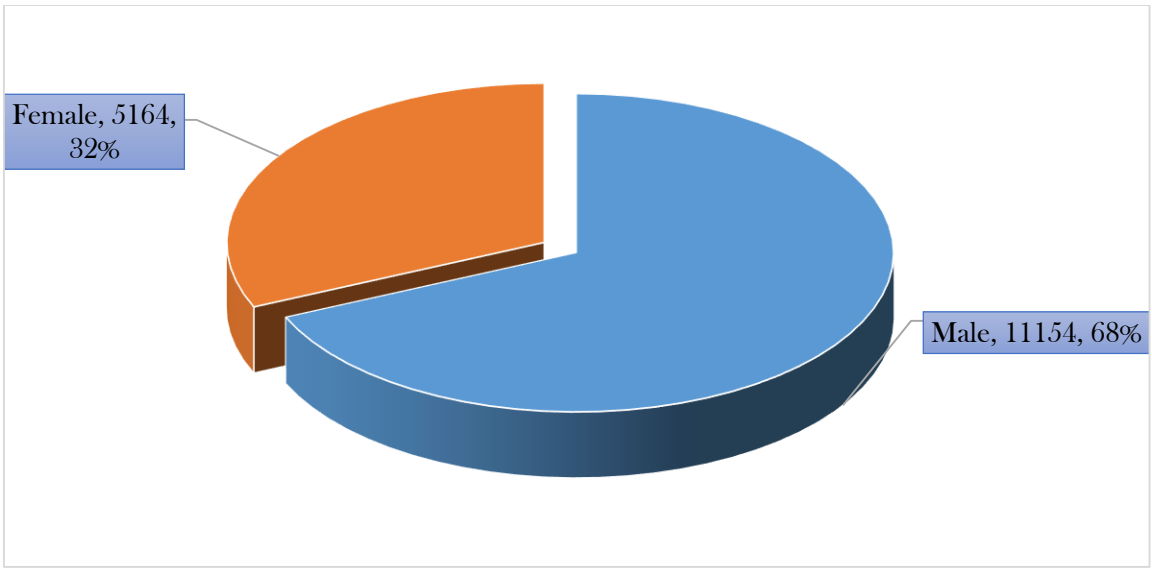

Figure 23: Academic Staff by Gender in Public and Private Universities

The Table 33 is a summary of staff distribution by gender within and between universities.

	Male		Female		
Category	Count	%	Count	%	Total
Public Universities	8,363	70	3,650	30	12,013
Private Universities	2,791	65	1,514	35	4,305
Total	11,154	68	5,164	32	16,318

Table 33: Academic Staff by Gender in Public and Private Universities

In public universities, of the 74% (12,013) academic staff, 70% were male while in private universities, of the 26% (4,305) academic staff, 65% were male. Female academic staff in private universities registered a higher proportion of 35% as compared to their counterparts in public universities, which accounted for 30%. Figure 24 shows the gender distribution of academic staff in public and private universities.

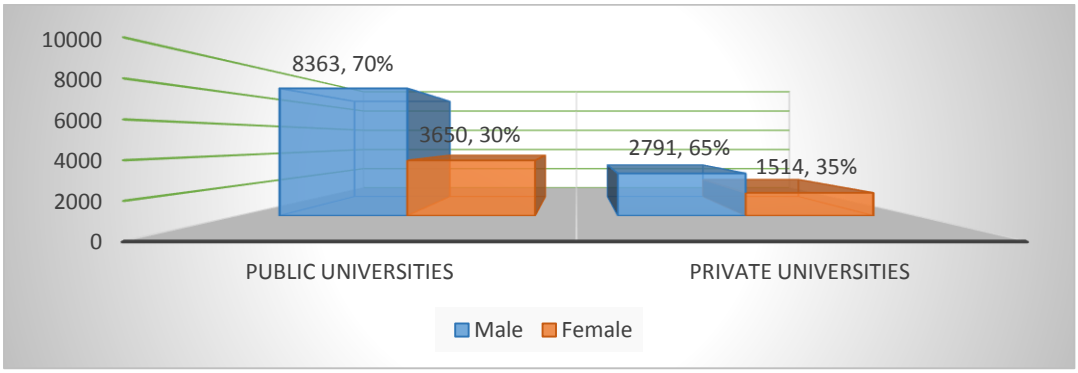

Figure 24: Academic Staff in Public and Private Universities

1.3 Academic Staff by Gender and University Category

In terms of gender disparities in academic staff, public chartered universities had a male female ratio of 70% to 30%, private chartered universities had 64% to 36%, public university constituent colleges had 65% to 35%, private university constituent colleges had 70% to 30% while private universities with Letters of Interim Authority (including registered private universities) had 66% to 34%. Private chartered universities are therefore more gender responsive in terms of academic staff than all the other university categories. This is shown in Table 34.

	University Category					
Gender	Public Chartered Universities	Private Chartered Universities	Public Constituent Colleges	Private Constituent Colleges	Private Universities with LIA	Total
Male	7,969	1,972	394	148	671	11,154
% of the count	70	64	65	70	66	
Female	3,441	1,098	209	64	352	5,164
% of the count	30	36	35	30	34	
Total	11,410	3,070	603	212	1,023	16,318
% of the count	100	100	100	100	100	100

Table 34: Academic Staff by Gender in University Categories

Figure 25 shows that public chartered universities accounted for 70% of the total academic staff with chartered private universities accounted for 19%. Private universities with Letter of Interim Authority registered 6% while public and private university constituent colleges had 4% and 1% respectively.

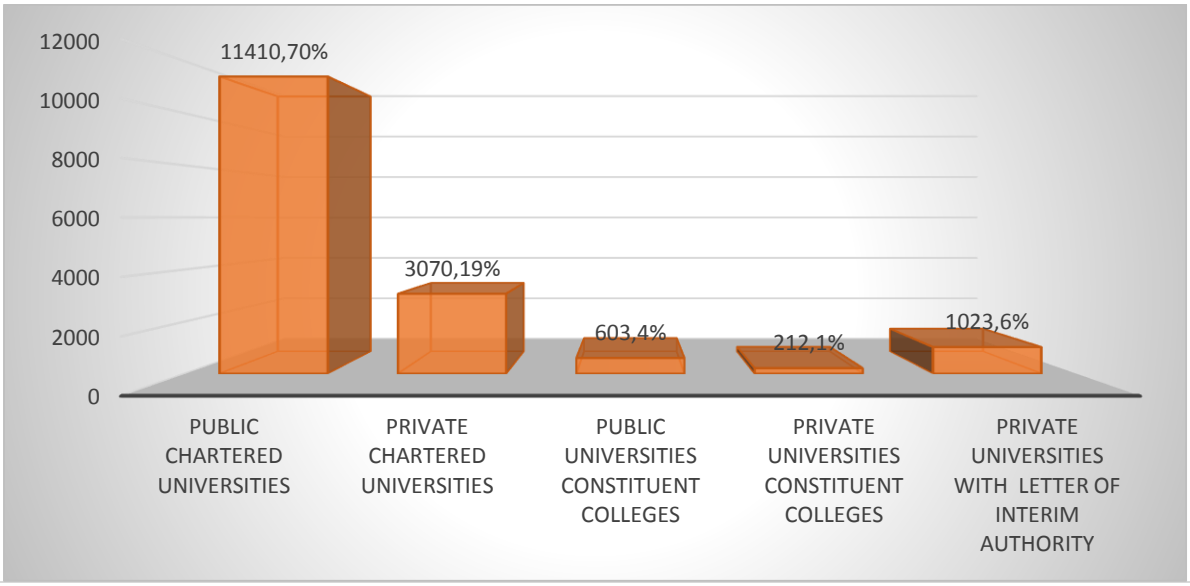

Figure 25: Academic Staff in University Categories

1.4 Academic Staff by qualification and University Category

There were a total of 5,604 academic staffs who had PhD qualification. This constitutes 34% of the total academic staff. Those with master's qualification were 8,661 constituting 53% of the staff. Bachelor and diploma holders qualification were 1,365 (9%) and 656 (4%) respectively. This is shown in Table 35.

University Category	Academic Staff Qualifications				Total	%
	PhD	Master	Bachelors	Diploma		
Public Chartered Universities	4,215	5,661	1,004	530	11,410	70
Public University Constituent Colleges	133	292	100	78	603	4
Private Chartered Universities	923	1,936	168	43	3,070	19
Private University Constituent Colleges	113	91	6	2	212	1
Private Universities with LIA	220	713	87	3	1023	6
Total	5,604	8,693	1,365	656	16,318	100
%	34	53	9	4	100	

Table 35: Academic Staff Qualification per University Category

Public chartered universities had the highest number of PhD holders at 26% of the total academic staff followed with private chartered universities with 6%. The remaining university categories had 2% and below of their academic staff with PhDs. Masters holders assumed the same trend with 35% being in public chartered universities while 12% were in private chartered universities. Private universities with LIA had 4% while public and private constituent colleges had 2% and below respectively. Bachelors and diploma holders followed the same trend to that of PhDs and Masters as shown in Figure 26.

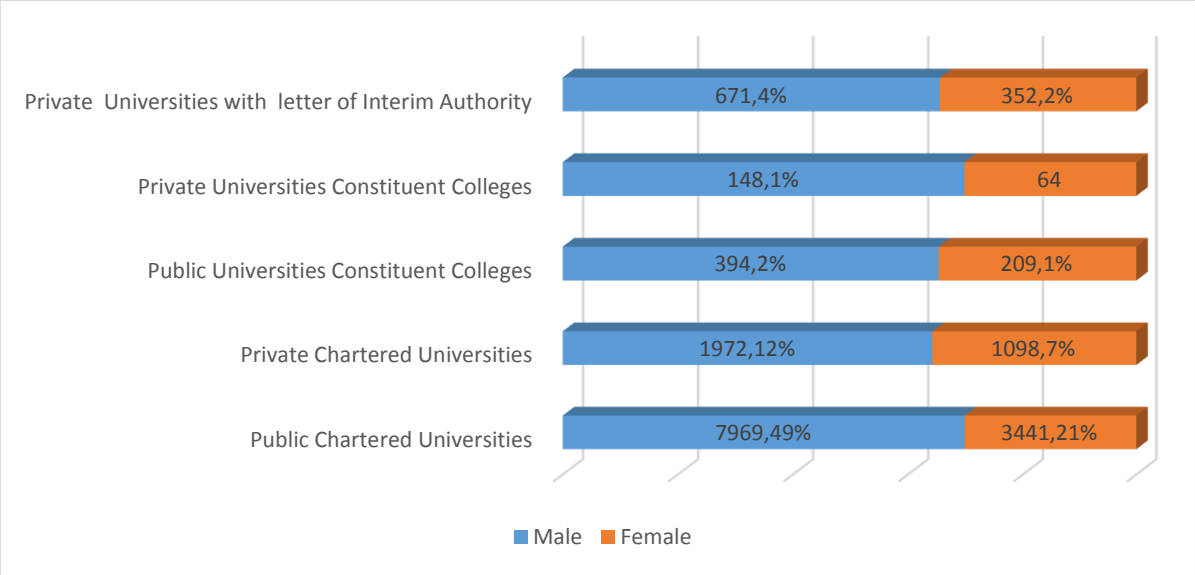

Figure 26: Staff Qualification in University Categories

1.5 Academic staff by Gender, Qualification and University Categories

The Table 36 shows the number of academic staff by gender, qualifications and university category. Of the academic staff with PhD qualification, 4,215 were male while 1,389 were female; those with masters 5,555 were male while 3,138 were female. Of those academic staff with bachelor degree qualification, 913 were female while 452 were male. Of those with diploma, 471 were male while 185 were female.

Qualification	Gender	University Category			Total	% Qualification
		Public Universities	Private Universities	Universities with LIA		
PhD	Male	3,287	756	172	4,215	
	% of count	27	23	17	26	
	% of total	20	5	1	26	
	Female	1,061	280	48	1,389	
	% of count	9	9	5	9	
	% of total	7	2	-	9	
	Sub-total	4,348	1,036	220	5,604	34
Masters	Male	3,885	1,226	444	5,555	
	% of count	32	37	43	34	
	% of total	24	8	3	35	
	Female	2,068	801	269	3,138	
	% of count	17	24	26	19	
	% of total	13	5	2	20	

	Sub-total	5,953	2,027	713	8,693	53
Bachelors	Male	759	102	52	913	
	% of count	6	3	5	6	
	% of total	5	-	-	5	
	Female	345	72	35	452	
	% of count	3	2	3	3	
	% of total	2	-	-	2	
	Sub-total	1,104	174	87	1,365	9
Diploma	Male	432	36	3	471	
	% of count	5	1	-	3	
	% of total	3	-	-	3	
	Female	176	9	-	185	
	% of count	2	-		1	
	% total	1	-	-	1	
	Sub-total	608	45	3	656	4
	Total	12,013	3,282	1,023	16,318	100
	% of count	100	100	100	100	
	% of total	74	20	6	100	

Table 36: Academic staff by Gender, Qualification and University Categories

1.6 Staff by Qualifications in Public and Private Universities

By categorization, 53% of the academic staff had master's qualification while PhD qualification accounted for 34%. Those with bachelor's qualification were 9% with the least being diploma holders were 4%. It is therefore imperative that universities develop mechanisms of training master staff to acquire PhD qualification. Figure 27 gives this information.

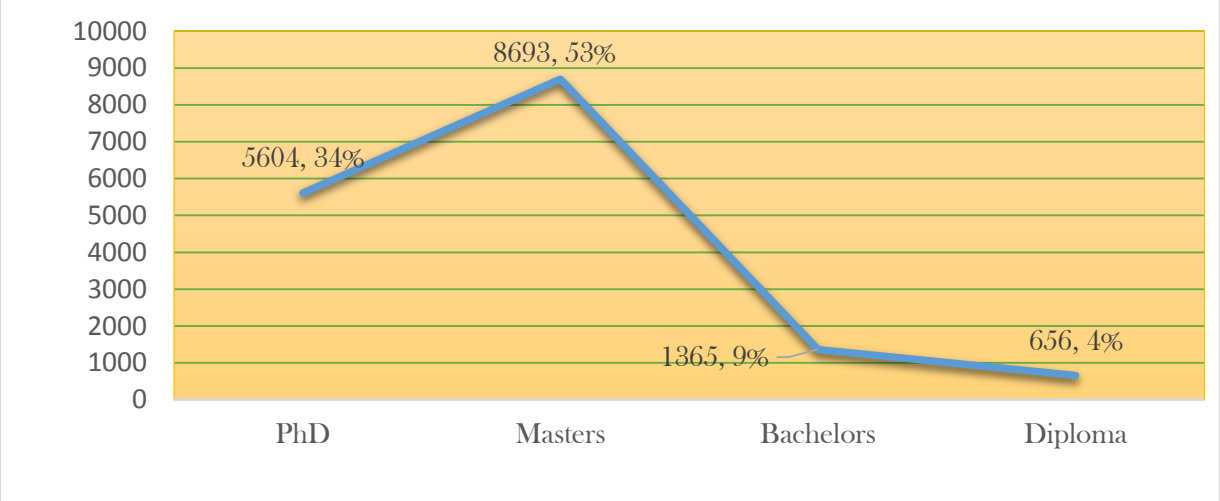

Figure 27: Staff Qualification in Public and Private Universities

1.7 Academic Staff by Gender and Qualification in Public and Private Universities

The results indicated that the gap between male and female widened as the level of qualifications progressed upwards. At diploma level 3% of the academic staffs were male while 1% was female, 6% of bachelor holders were male while 3% were female, 34% of master's holders were male 19% were female. At PhD level 26% were male while 9% female. This is shown in the Figure 28.

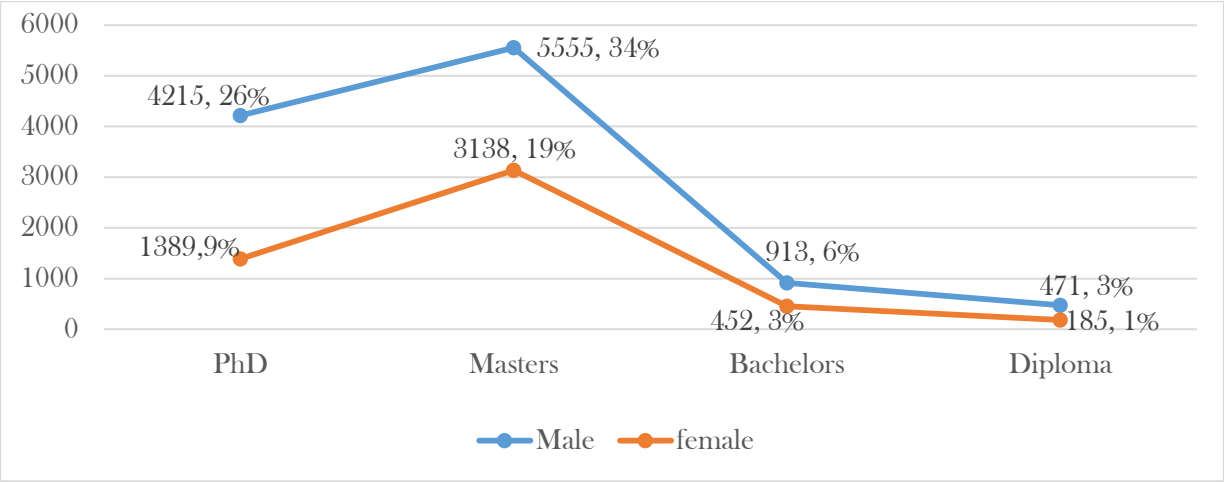

Figure 28: Academic Staff by Gender and Qualification in Public and Private Universities

1.8 Staff by Gender, Qualification and University Category

In public universities (including their constituent colleges), male academic staff with master's qualification were the highest at 24% in public universities followed by male PhD holders at 20% in the same university category. Their female counterparts in possession of masters and PhD qualification accounted for 13% and 7% respectively. Those with bachelors qualification accounted for 5% for male and 2% for female. The least proportion of academic staff in public universities was that with diploma qualification where male accounted for 3% and female accounted for 1%.

In private universities (including their constituent colleges), academic staff with master's qualification were the majority with male staff accounting for 8% with female staff accounting for 5%. In private universities male staffs with PhD qualification were 5% while 2% of their female counterparts had the same qualification. In absolute values male and female Bachelor's holders indicated 102 and 72 respectively. Those with diploma were 36 and 9 for male and female respectively.

Further, in private universities with LIA, those with master's qualification were the majority with male and female staff standing at 3% and 2% respectively. Male staff with PhD qualification accounted for only 1% as their female counterparts were only 48 in absolute terms. In absolute terms Bachelor holders were 52 and 35 for males and females respectively. There were only 3 male staffs with diploma. Figure 29 is a representation of the academic staff by gender, qualification and university category.

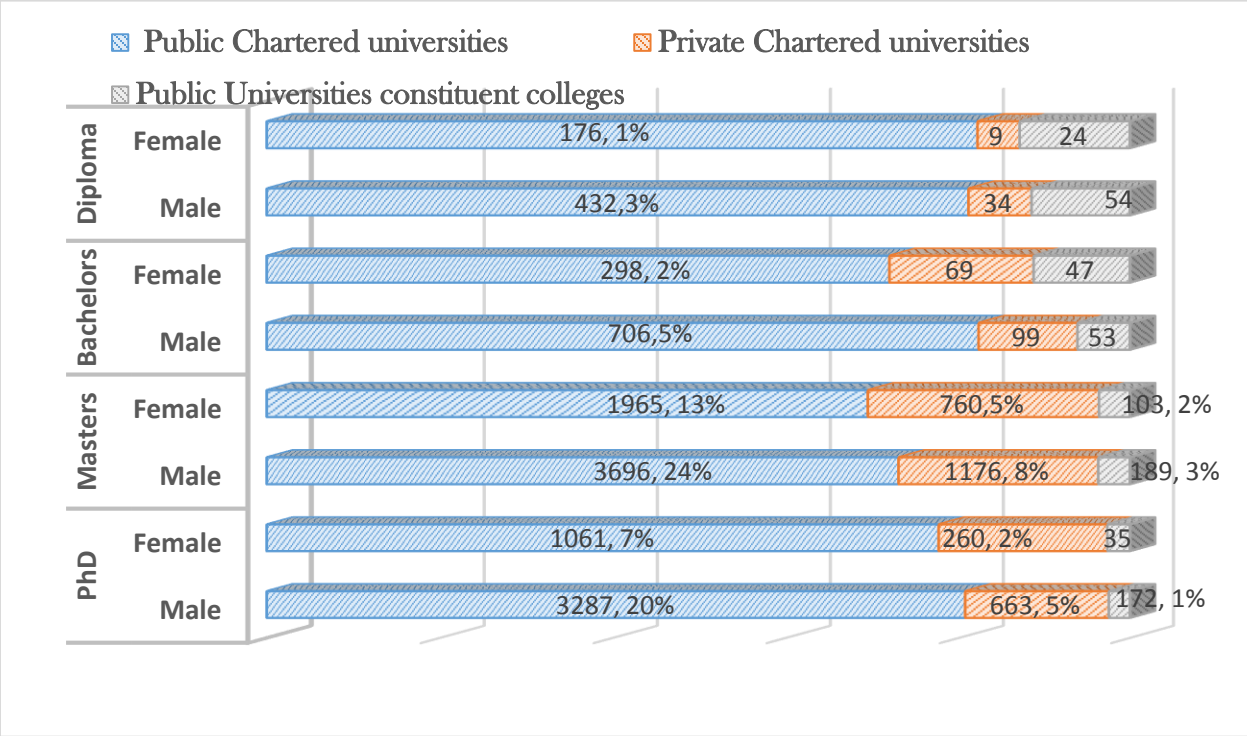

Figure 29: Staff by Gender, Qualification and University Category

1.9 Summary and Policy Implications

Data has revealed that there are glaring disparities in terms of the university type (public or private); qualification and gender. It is important to note that public universities possess the highest number of the staff at 74%; while private universities have a smaller proportion of 26%. This seems to suggest that public universities attract more staff because of the wide diversity of programmes which they have developed and offer. This result calls for the private universities to do more benchmarking with public universities to gain some competitive edge.

Secondly, it has emerged that public universities have more and better qualified staff than the private ones. Data shows that 27% of all the staff with PhD are in public universities compared to

only 9% in private universities. The same pattern obtains for staff with masters qualifications. This is a cause for worry as it means that there are very few academic leaders to mentor scholars in the sector. The proportion of staff with PhD (5,604) to the total enrolment of students (539,749) is 1 to 98; which is far above the UNESCO accepted level of 1 to 30.

Thirdly, data has also revealed a worrying situation of gender representation. Of the 5,604 PhD holders, only 9% are female, while 26% are male. This is almost one third of the male.

The statistics for masters are slightly better with the female registering 19% and male 34%. The female are almost half the number of the male. There is need to find a mechanism for supporting the female staff to earn PhD qualification.

Chapter Six

Universities Academic Staff Distribution by Rank

6.1 Introduction

This chapter provides information of academic staff by rank in public and private universities. The academic staff are categorized into five levels namely: professors, senior lecturers and lecturers, assistant lecturers and graduate assistants. This chapter therefore leaves out academic staff who are holders of diploma qualification who are not part of the five levels.

6.2 Distribution of Academic Staff by Rank and University Category

Table 37 represents the distribution of academic staff by rank and university category. It is observed that public universities had three quarters (75%) of the entire academic staff in the university sector; while private universities only had (25%). Majority of staff were in the rank of lecturers (39%) and assistant lecturers (32%). The remaining staff were composed of professors (10%), senior lecturers (13%) and assistant lecturers (6%). This was a skewed distribution with worrisome implications to mentorship and academic leadership in universities. Universities in South Africa have more staff in the higher ranks (senior lecturer and professor) than in the lower cadre (Higher Education in Africa, 2010).

			Rank					Total
			Professors	Senior Lecturers	Lecturers	Assistant Lecturers	Graduate Assistants	
University Category	Public University	Count	1,335	1,555	4,225	3,818	895	11,828
		% of Total	9%	10%	26%	24%	6%	75%
	Private University	Count	333	455	1,985	1,262	138	4,173
		% of Total	2%	2%	13%	7%	1%	25%
Total		Count	1,668	2,010	6,210	5,080	1,033	16,001
		% of Total	10%	13%	39%	32%	6%	100%

Table 37: Academic Staff in Public and Private University by Rank

Figure 30 is a graphical presentation of academic staff distribution by Rank public and private universities.

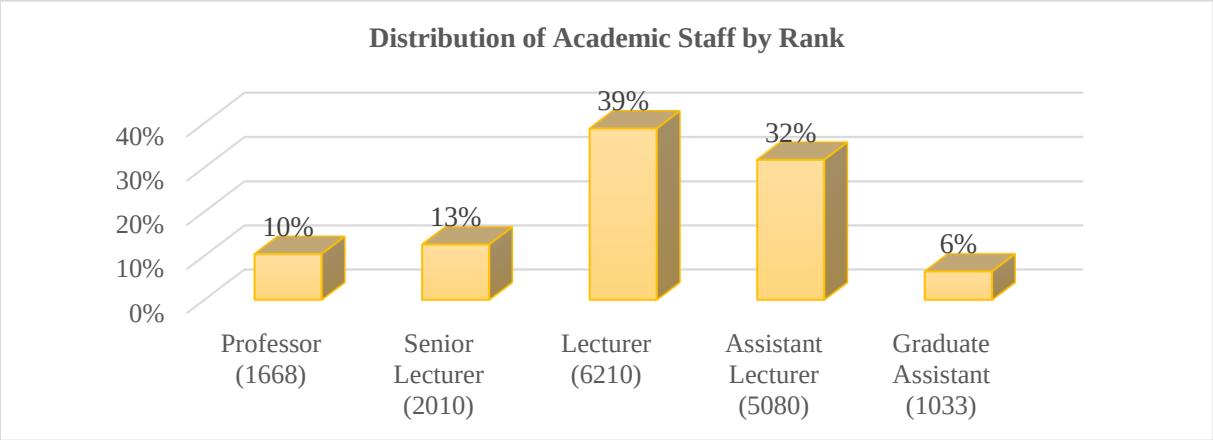

Figure 30: Distribution of Academic Staff by Rank

6.3 Distribution of Academic Staff by Gender and Rank

In terms of gender, the academic staff composition stood at 68% male and 32% female. The male staff dominated in all ranks, except in the rank of graduate assistant where the difference was only 1%. The gender gap widened at the ranks of senior lecturers and professors.

An analysis of gender disparities in public and private universities revealed that the gap was much wider in public than in private universities. However, female staffs were generally under-represented in all academic ranks. Table 41 provides this information.

			Rank					Total
			Professors	Senior Lecturers	Lecturers	Assistant Lecturers	Graduate Assistants	
Gender	Male	Count	1,403	1,511	4,153	3,248	595	10,910
		% of Total	9%	9%	26%	20%	4%	68%
	Female	Count	265	499	2,057	1,832	438	5,091
		% of Total	2%	3%	13%	11%	3%	32%
Total		Count	1,668	2,010	6,210	5,080	1,033	16,001
		% of Total	10%	13%	39%	32%	6%	100%

Table 38: Distribution of Academic Staff by Gender and Rank

Figure 31 shows the gender composition of teaching staff in public and private universities. It is quite clear that the gap between the male and female was bigger in public than private universities.

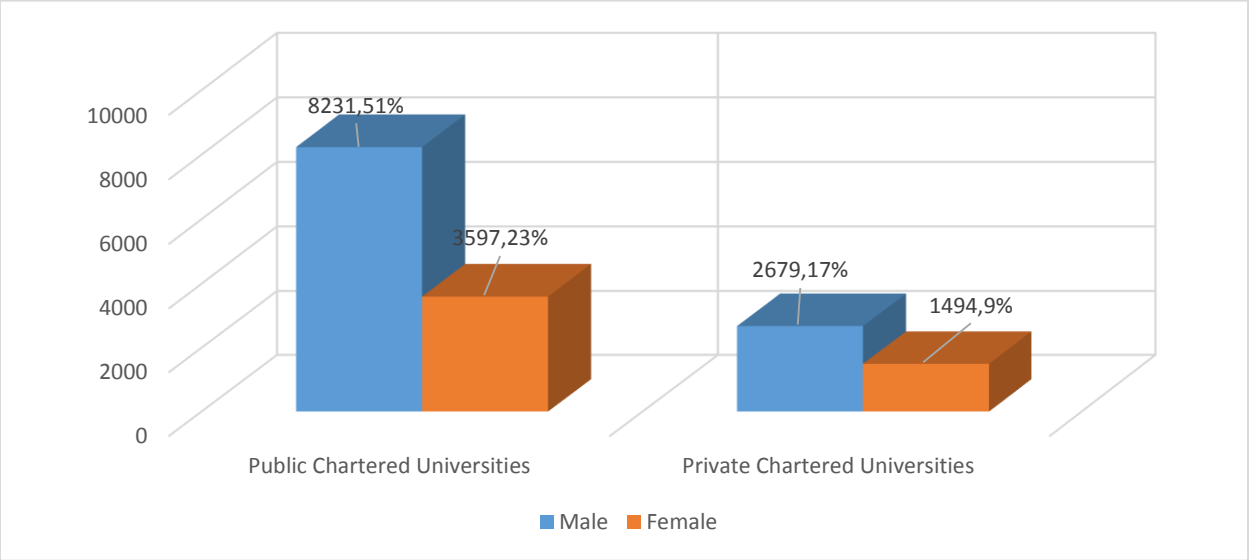

Figure 31: Staff Distribution in Public Chartered Universities and Private Chartered Universities

Figure 31: Distribution of Academic Staff by University Category and Gender.

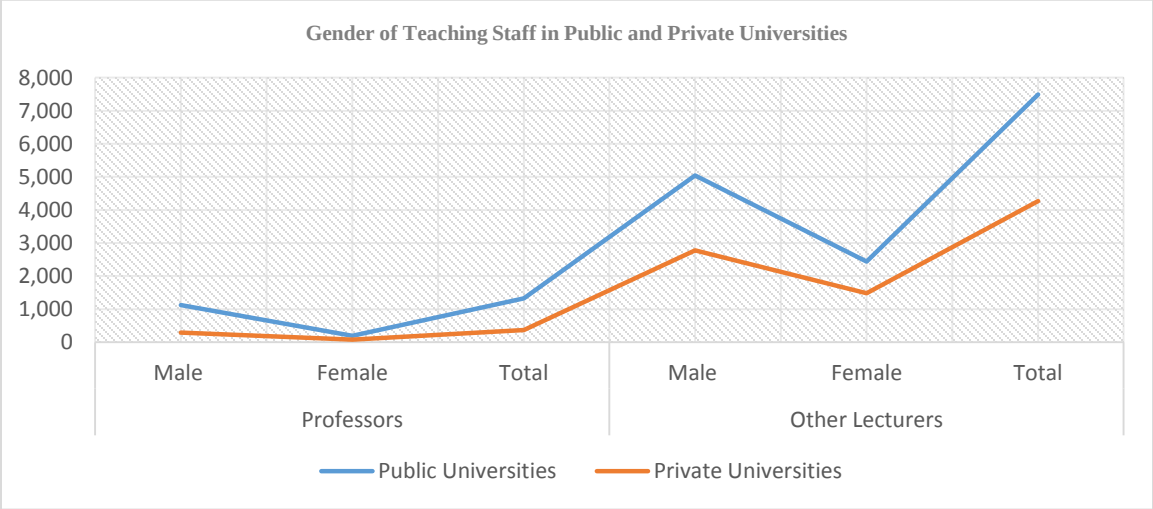

Figure 32: Academic Staff in Public and Private Universities

6.4 Distribution of Academic Staff by University Category and Gender

The majority of the academic staff were found in public universities and their constituent colleges (74%); followed by private chartered universities and their constituent colleges (20%) and remainder 5% were found in universities with Letters of Interim Authority (LIA). Although there was a lot of cross-university movement by the academic staff; most of them were employed on permanent terms in public universities.

			University category					Total
			Private University Constituent Colleges	Public University Constituent Colleges	Private Universities with Letter of Interim Authority	Private Chartered Universities	Public Chartered Universities	
Gender	Male	Count	154	530	553	1972	7701	10910
		%	1%	3%	3%	12%	48%	68%
	Female	Count	59	255	291	1144	3342	5091
		%	%	2%	2%	7%	21%	32%
Total		Count	213	785	844	3116	11043	16001
		%	1%	5%	5%	19%	69%	100%

Table 39: Academic Staff by University Category and Gender

6.5 Distribution of Academic Staff per Cluster

Data on academic staff per cluster programme is very important as it shows the specific areas where the universities have adequate capacity. From Table 40, the cluster of Business Administration had the highest level of staff at 19%; followed by Health and Welfare (11%); Humanities and Arts (10%); Education (Arts) and Life and physical Sciences both at 9%.

The clusters with the least academic concentration were Architecture; Education (Science); Law; Services; Security and Conflict Resolution, Teacher Training and Veterinary all of which had 1%. The remaining clusters had academic staff proportion ranging from 2% to 6%.

Clearly there is a big divide between the number of staff in Science-oriented and Humanities, with the latter having most of the staff (58%). This would translate into low staff to student ratio as will be seen in subsequent analyses.

Table 40: Distribution of Academic Staff as per Cluster

S/No.	Clusters	Count	Percent
1	Agriculture, Forestry and Fisheries	903	6%
2	Architecture	231	1%
3	Business and Administration	3,082	19%
4	Computing	893	6%
5	Education (Arts)	1,465	9%
6	Education (Science	152	1%
7	Engineering	762	5%
8	Environment	512	3%
9	Health and Welfare	1,753	11%
10	Humanities and Arts	1,635	10%
11	Journalism and Information	360	2%
12	Law	376	2%
13	Life and Physical Sciences	1,515	9%
14	Manufacturing	50	%
15	Mathematics and Statistics	515	3%
16	Security and Conflict Resolution	128	1%
17	Services	196	1%
18	Social and Behavioral Sciences	1,002	6%
19	Teacher Training	127	1%
20	Veterinary	202	1%
21	Other	142	1%
	Total	16,001	100%

6.6 Academic Staff as per Cluster and Rank

An analysis of the spread of academic staff along the five ranks gives some interesting insights about staff in universities. Table 41 shows that most professors were found in the science-related fields: Agriculture 211 (1%); Health and welfare 250 (2%); Life and Physical Sciences 248 (2%). On the other hand staff in the rank of lecturers were concentrated in Business and Humanities. Specifically, 1,358 (8%) lecturers were in Business and Administration; 726 (5%) lecturers were in Humanities and Arts and 581 (4%) lecturers were in Education (Arts). Staff of the rank of assistant lecturers were mainly concentrated in Business and Administration 1240 (8%) and Education (Arts) 543 (3%). Table 41 shows academic staff per cluster and rank.

		Rank					
S/No.	Clusters	Professors	Senior Lecturers	Lecturers	Assistant Lecturers	Graduate Assistants	Total
1	Agriculture, Forestry and Fisheries	211	133	288	193	78	903
		1%	1%	2%	1%	0%	6%
2	Architecture	24	36	101	56	14	231
		%	%	1%	%	%	1%
3	Business and Administration	114	279	1,358	1,240	91	3,082
		1%	2%	8%	8%	1%	19%
4	Computing	40	87	355	363	48	893
		%	1%	2%	2%	%	6%
5	Education (Arts)	123	188	581	534	39	1,465
		1%	1%	4%	3%	%	9%
6	Education (Science	15	23	53	40	21	152
		%	%	%	%	%	1%
7	Engineering	79	108	220	200	155	762
		%	1%	1%	1%	1%	5%
8	Environment	35	58	171	204	44	512
		%	%	1%	1%	%	3%
9	Health and Welfare	250	318	726	346	113	1753
		2%	2%	5%	2%	1%	11%
10	Humanities and Arts	176	204	726	471	58	1635
		1%	1%	5%	3%	0%	10%
11	Journalism and Information	20	29	175	105	31	360
		%	%	1%	1%	%	2%
12	Law	21	47	197	90	21	376
		%	%	1%	1%	%	2%
13	Life and Physical Sciences	248	201	498	452	116	1515
		2%	1%	3%	3%	1%	9%
14	Manufacturing	10	7	13	7	13	50
		%	%	%	%	%	%
15	Mathematics and Statistics	57	48	136	235	39	515
		%	%	1%	1%	%	3%
16	Security and Conflict Resolution	7	15	30	63	13	128
		%	%	%	%	%	1%
17	Services	11	16	38	98	33	196
		%	%	%	1%	%	1%
18	Social and Behavioral Sciences	125	133	432	241	71	1,002
		1%	1%	3%	2%	%	6%
19	Teacher Training	5	14	36	68	4	127

		%	%	%	%	%	1%
20	Veterinary	55	36	52	32	27	202
		%	%	%	%	%	1%
21	Other	42	30	24	42	4	142
		%	%	%	%	%	1%
	Total	1,668	2,010	6,210	5,080	1,033	16,001
		10%	13%	39%	32%	6%	100%

Table 41: Proportion of Academic Staff per Cluster and Rank in Universities

Analysis of the distribution of academic staff per cluster and university category shows that the majority (69%) of the staff are in public chartered universities; followed by private chartered universities (19%). The remaining (12%) are in the constituent colleges and those with Letters of Interim Authority. It implies these young institutions are operating on thread-bare staff and have to rely extensively on part-time lecturers. This may not augur well for them, as they require a lot support and mentorship at that critical stage of growth. Table 42 gives a summary of this information.

	University category					**Total**
Clusters	Private University Constituent Colleges	Public University Constituent Colleges	Private Universities with Letter of Interim Authority	Private Chartered Universities	Public Chartered Universities	
Agriculture, Forestry and Fisheries	42	44	32	10	775	903
	%	%	%	%	5%	6%
Architecture	0	8	0	0	223	231
	0%	0%	0%	0%	1%	1%
Business and Administration	9	356	242	948	1527	3082
	%	2%	2%	6%	10%	19%
Computing	0	31	81	360	421	893
	0%	0%	1%	2%	3%	6%
Education (Arts)	54	64	74	289	984	1465
	%	%	%	2%	6%	9%
Education (Science	0	8	3	5	136	152
	0%	0%	0%	0%	1%	1%
Engineering	0	35	1	0	726	762
	0%	0%	0%	0%	5%	5%
Environment	0	14	0	79	419	512
	0%	0%	0%	0%	3%	3%
Health and Welfare	20	32	140	255	1306	1753
	%	%	1%	2%	8%	11%

Humanities and Arts	68	37	105	500	925	1635
	%	%	1%	3%	6%	10%
Journalism and Information	13	25	18	81	223	360
	%	%	%	1%	1%	2%
Law	0	0	18	148	210	376
	0%	0%	0%	1%	1%	2%
Life and Physical Sciences	0	31	0	31	1453	1515
	0%	0%	0%	0%	9%	9%
Manufacturing	0	5	0	0	45	50
	0%	0%	0%	0%	0%	0%
Mathematics and Statistics	0	42	5	79	389	515
	0%	0%	0%	0%	2%	3%
Security and Conflict Resolution	0	0	0	0	128	128
	0%	0%	0%	0%	1%	1%
Services	0	27	6	18	145	196
	0%	0%	0%	0%	1%	1%
Social and Behavioral Sciences	7	25	17	284	669	1002
	%	%	%	2%	4%	6%
Teacher Training	0	0	0	3	124	127
	0%	0%	0%	0%	1%	1%
Veterinary	0	1	0	9	192	202
	0%	0%	0%	0%	1%	1%
Other	0	0	102	17	23	142
	0%	0%	1%	0%	0%	1%
Total	213	785	844	3116	11043	16001
	1%	5%	5%	19%	69%	100%

Table 42: Distribution of Academic Staff per Cluster and University Category

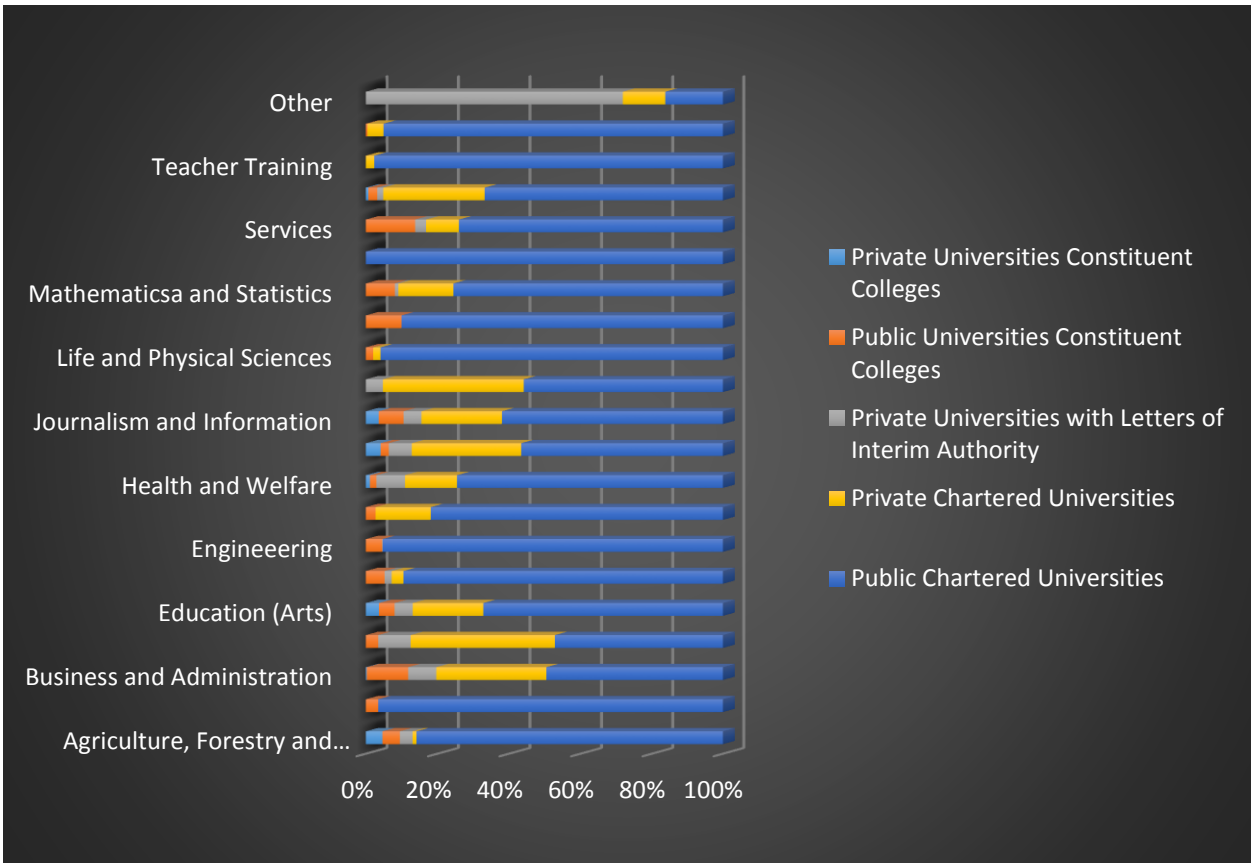

Figure 33: Academic Staff per Cluster & University Category

Figure 33 is a further illustration of the dominance public universities (blue shade) have in as far as staffing is concerned. It is followed closely by private chartered universities (yellow shade), which have a high presence of staff in some clusters such as Business and Administration, Computing, Information and Journalism, and Law.

6.7 Academic Staff per Cluster in Public and Private Universities

There were 16,001 academic staff by rank in public and private universities consisting of 11,828 in public and 4,173 in private universities. Business and Administration cluster had the highest number of academic staff at 3,082 representing 20% of the total academic staff. Health and Welfare cluster had 1,753 teaching staff representing 11% followed by Humanities & Arts cluster with 1,635 representing 10%. The clusters with the smallest number of academic staff were Manufacturing, Security and Conflict Resolution and Education (Science) and Architecture with 50, 128, 152 and 231 respectively. All these clusters registered a proportion less than 1% of the total teaching staff in public universities. Table 41 shows the number of teaching staff in public

and private universities. In Chapter two of this report, it was observed that most students were enrolled in Business and Administration, and Humanities & Arts clusters that the data in this chapter confirms with more faculty staff compared to those with few enrolments. Unless this pattern is controlled, the country will continue witnessing mass production of graduates in Business Administration, and Humanities and Arts, in contradiction to the current focus on science, technology and innovation for industrialization agenda as espoused in the Kenya Vision 2030. Table 43 shows academic staff per cluster in public and private universities

Clusters	Public Universities	Private Universities	Total
Agriculture, Forestry and Fisheries	819	84	903
	5%	0%	5%
Architecture	231	0	231
	1%	0%	1%
Business and Administration	1,883	1,199	3,082
	12%	8%	20%
Computing	452	441	893
	3%	3%	6%
Education (Arts)	1,048	417	1,465
	6%	2%	8%
Education (Science)	144	8	152
	1%	0%	1%
Engineering	761	1	762
	5%	0%	5%
Environment	433	79	512
	3%	0%	3%
Health and Welfare	1,338	415	1,753
	8%	3%	11%
Humanities and Arts	962	673	1,635
	6%	4%	10%
Journalism and Information	248	112	360
	1%	1%	2%
Law	210	166	376
	1%	1%	2%
Life and Physical Sciences	1,484	31	1,515
	9%	0%	9%
Manufacturing	50	0	50
	0%	0%	0%
Mathematics and Statistics	431	84	515

	2%	0%	2%
Security and Conflict Resolution	128	0	128
	1%	0%	1%
Services	172	24	196
	1%	0%	1%
Social and Behavioral Sciences	694	308	1,002
	4%	2%	6%
Teacher Training	124	3	127
	1%	0%	1%
Veterinary	193	9	202
	1%	0%	1%
Other	23	119	142
	0%	1%	1%
Total	11,828	4,173	16,001
	74%	26%	100%

Table 43: Academic Staff per Cluster in Public and Private Universities

Analysis of these two broad categories of universities of the staffing levels per cluster shows that public universities generally have higher staff levels compared with private universities in all the clusters offered. But there exists a striking similarity in the portion of academic staff for some clusters. Business and Administration; Health and Welfare and Education (Arts) registered high staff levels in both public and private universities. It is worth noting that since private universities do not offer some clusters especially those that are science-oriented, there were no academic staff for those clusters.

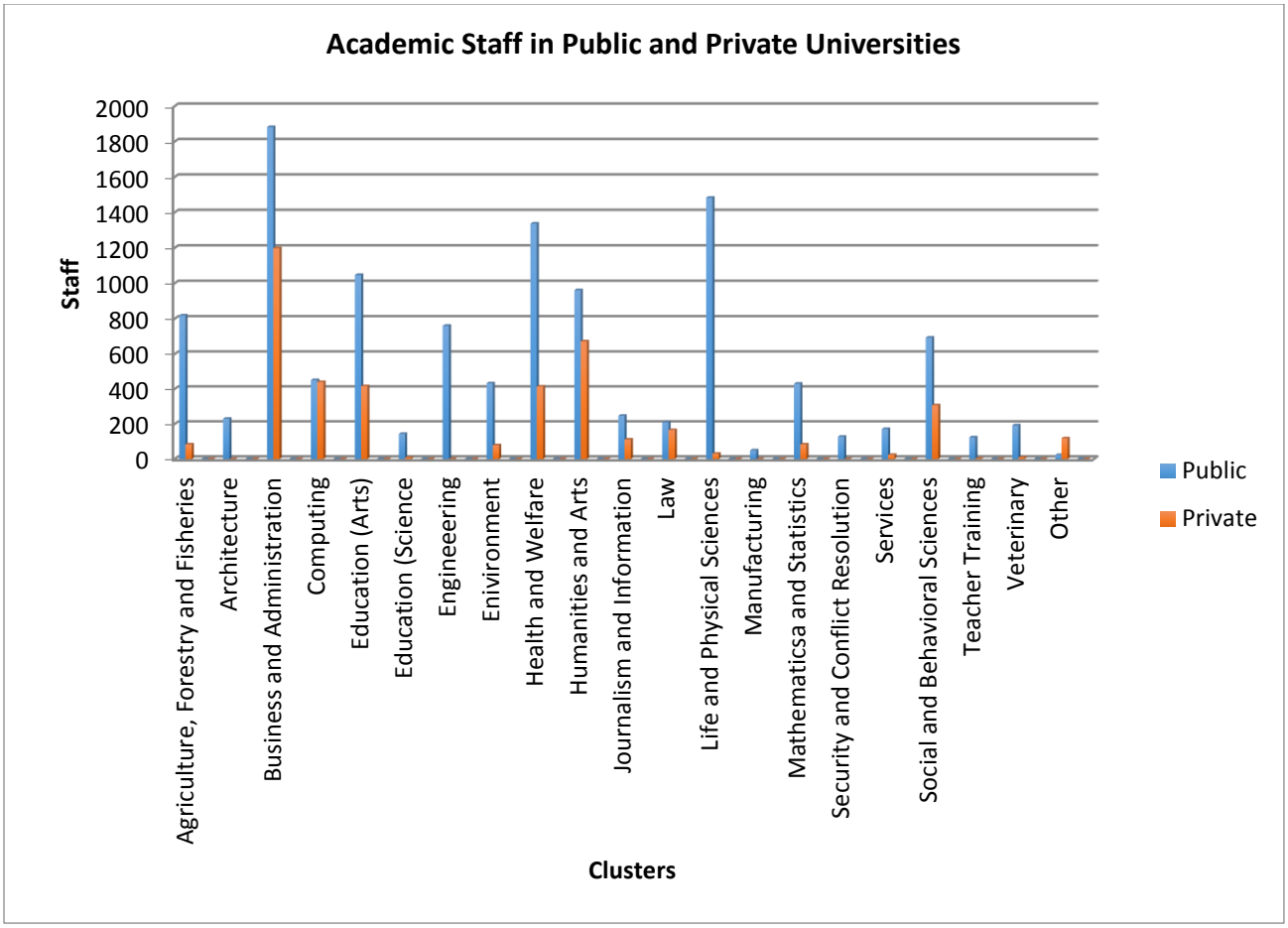

Figure 34: Academic Staff in Public and Private Universities

Figure 34 further illustrates the proportion of academic staff per cluster in Public and private universities. It is apparent that there were more in public universities than private universities.

6.8 Academic Staff to Student Ratio per Cluster in Public Universities

Staff to student ratio is one of the most important statistics in any learning institution. This helps in determining the loading levels of the faculty, adequacy of learning space and availability of materials for teaching and learning. Data presented in Table 46 shows the teacher student ratio in public universities. Three clusters stand out as having a relatively high teacher student ratio. These were Education (Science) (1:186); Education (Arts) (1:66) and Business and Administration (1:50).

The clusters with the least ratio included Veterinary, Law, Environment, Health and Welfare and Architecture. The overall staff: student ratio in public universities is 1: 39. This data is presented in Table 44 below.

Clusters	No. of Staff	No. of Students	Ratio
Agriculture, Forestry and Fisheries	819	26,648	1: 33
Architecture	231	5,057	1: 22
Business and Administration	1883	93,331	1: 50
Computing	452	15,137	1: 34
Education (Arts)	1048	69,188	1: 66
Education (Science	144	26,772	1: 186
Engineering	761	21,710	1: 29
Environment	433	9,587	1: 22
Health and Welfare	1338	23,599	1: 18
Humanities and Arts	962	40,179	1: 42
Journalism and Information	248	11,298	1: 46
Law	210	3,642	1: 17
Life and Physical Sciences	1484	34,385	1: 23
Manufacturing	50	2,290	1: 46
Mathematics and Statistics	431	14,396	1: 33
Security and Conflict Resolution	128	5,126	1: 40
Services	172	8,934	1: 52
Social and Behavioral Sciences	694	33,491	1: 48
Teacher Training	124	5,673	1: 46
Veterinary	193	1,122	1: 6
Other	23	10,255	
Total	11,828	461,820	1: 39

Table 44: Academic Staff to Student Ratio per Cluster in Public Universities

6.8.1 Academic Staff to Student Ratio per Cluster in Private Universities

In private universities the trend was the same except that the numbers were much lower than in the public universities**.** The overall staff to student ratio in private universities was 1: 19. These statistics are provided in Table 45 below.

Cluster			pivate	Total
Agriculture, Forestry and Fisheries			84	267
Architecture			0	0
Business and Administration			1199	26,892
Computing			441	7,513
Education (Arts)			417	10,181
Education (Science			8	3,660
Engineeering			1	162
Enivironment			79	256
Health and Welfare			415	6,979
Humanities and Arts			673	5,960
Journalism and Information			112	3,325
Law			166	3,519
Life and Physical Sciences			31	184
Manufacturing			0	3
Mathematicsa and Statistics			84	438
Security and Conflict Resolution			0	764
Services			24	407
Social and Behavioral Sciences			308	4,882
Teacher Training			3	1,272
Veterinary			9	26
Other			119	1,239
Total			4173	77,929

Clusters	No. of Staff	No. of Students	Ratio
Agriculture, Forestry and Fisheries	84	267	1: 3

Architecture	0	0	-
Business and Administration	1,199	26,892	1: 22
Computing	441	7,513	1: 17
Education (Arts)	417	10,181	1: 24
Education (Science	8	3,660	1: 458
Engineering	1	162	1: 162
Environment	79	256	1: 3
Health and Welfare	415	6,979	1: 17
Humanities and Arts	673	5,960	1: 9
Journalism and Information	112	3,325	1: 30
Law	166	3,519	1: 21
Life and Physical Sciences	31	184	1: 6
Manufacturing	0	3	-
Mathematics and Statistics	84	438	1: 5
Security and Conflict Resolution	0	764	-
Services	24	407	1: 17
Social and Behavioral Sciences	308	4,882	1:16
Teacher Training	3	1,272	1: 424
Veterinary	9	26	1: 3
Other	119	1,239	1: 10
Total	4173	77,929	1: 19

Table 45: Academic Staff to Student Ratio per Cluster in Private Universities

6.9 Academic Staff to Student Ratio per Cluster in Public and Private Universities

The overall staff student ratio was 1:34. The cluster, which had the highest staff to student ratio was education (science) with 1:200. This was followed by Education (Arts) with 1:54, Services with 1:48 and 'Others" with 1:81. The lowest staff to student ratio of 1:6 was recorded in Veterinary cluster. Others include Health and Welfare with 1:17, Law with 1:19 and Architecture with 1:22. Table 46 shows the staff student ratio in public and private universities.io.

	University category		Total	
Cluster	Private University Constituent College	Public Chartered University	**Total**	Total
Agriculture, **Forestry and Fisheries**	42	775	**903**	26,916
Architecture	0	223	**231**	5,057
Business **and Administration**	9	1527	**3082**	120,223
Computing	0	421	**893**	22,650
Education (Arts)	54	984	**1465**	79,368
Education **(Science**	0	136	**152**	30,432
Engineeering	0	726	**762**	21,872
Enivironment	0	419	**512**	9,843
Health and Welfare	20	1306	**1753**	30,578
Humanities and Arts	68	925	**1635**	46,139
Journalism **and Information**	13	223	**360**	14,623
Law	0	210	**376**	7,161
Life **and Physical Sciences**	0	1453	**1515**	34,569
Manufacturing	0	45	**50**	2,293
Mathematicsa and Statistics	0	389	**515**	14,834
Security **and Conflict Resolution**	0	128	**128**	5,890
Services	0	145	**196**	9,341
Social and **Behavioral Sciences**	7	669	**1002**	38,373
Teacher **Training**	0	124	**127**	6,945

Veterinary		0	192	**202**	1,148
Other		0	23	**142**	11,494
Total	213	11043	16001	539,749	

Table 46: Combined Public and Private Teaching Staff and Student Ratio

The staff to student ratios obtained in public universities (1:39) are the same as those of Ghana (1:39) in 2006/2007, when the statistics were collected (Tettey, 2010). However, Ghana's private universities have more pressure on the academic staff as the ratio stands at 1:41; compared to the Kenyan case (1:19). On the other hand, South Africa, maintained an average ratio above 1:40 during the period 2001 – 2006 (ibid). But the OECD and EU countries averages were recorded at 1:16 and 1:16 respectively in 2009. (UNESCO Institute of Statistics downloaded from www.oecd.org/edu/eag2011). For Kenya, these impressive Staff to student ratio may not be attained in the near future as more students are enrolling than the staff development programmes.

Chapter Seven

University Graduations

7.1 Introduction

University graduation rates illustrate a country's capacity to provide future human resource with specialized knowledge and skills. Incentives to obtain a university degree remain strong; from higher salaries to better employment prospects. University education varies widely in structure and scope among countries. Graduation rates seem to be influenced by the ease of access to and flexibility in completing programmes as well as the existing demand for higher skills in the labour market. Expanding access to and linking tertiary education to the demands in the labour market are vital to knowledge-based economies; but these are even more difficult to achieve when budgets are tight.

This chapter discusses graduation rates in universities both at undergraduate and post graduate levels over the last four years. The chapter begins with a summary of graduations in public and private universities. This is followed by graduations across the six university categories (public chartered universities, public university constituent colleges, private chartered universities, private university constituent colleges, private universities with LIA and registered private universities). Finally, it gives a summary of graduation by university category.

7.2 Graduation trends in Public Universities

Table 45 shows graduations in public universities from 2012 to 2015. Over the period, there was a progressive increase in graduation. In 2012, a total of 23,523 students consisting of 14,159 male and 9,364 female graduated. This increased to 49,020 students consisting of 28,224 male and 20,796 female in 2015. This represented an increase of 108%. Over the four year period, a total of 143,262 students graduated with 83,736 being male and 59,525 being female students.

Public Universities	2012		2013		2014		2015		Total		Grand Total
	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	
Bachelor	12,210	8,088	14,182	10,232	20,955	14,749	23,744	17,619	71,091	50,688	121,779
PGD	264	196	317	182	1,110	745	555	307	2,246	1,430	3,676
Masters	1,568	1,023	1,574	1,098	2,830	2,133	3,663	2,715	9,635	6, 969	16,604
PhD	117	57	140	87	245	140	262	155	764	439	1,203
Total	**14,159**	**9,364**	**16,213**	**11,599**	**25,140**	**17,767**	**28,224**	**20,796**	**83,736**	**59,526**	**143,262**

Table 47: Graduations in Public Universities

Figure 35 shows graduation trends for undergraduate and post-graduate programmes in public universities.

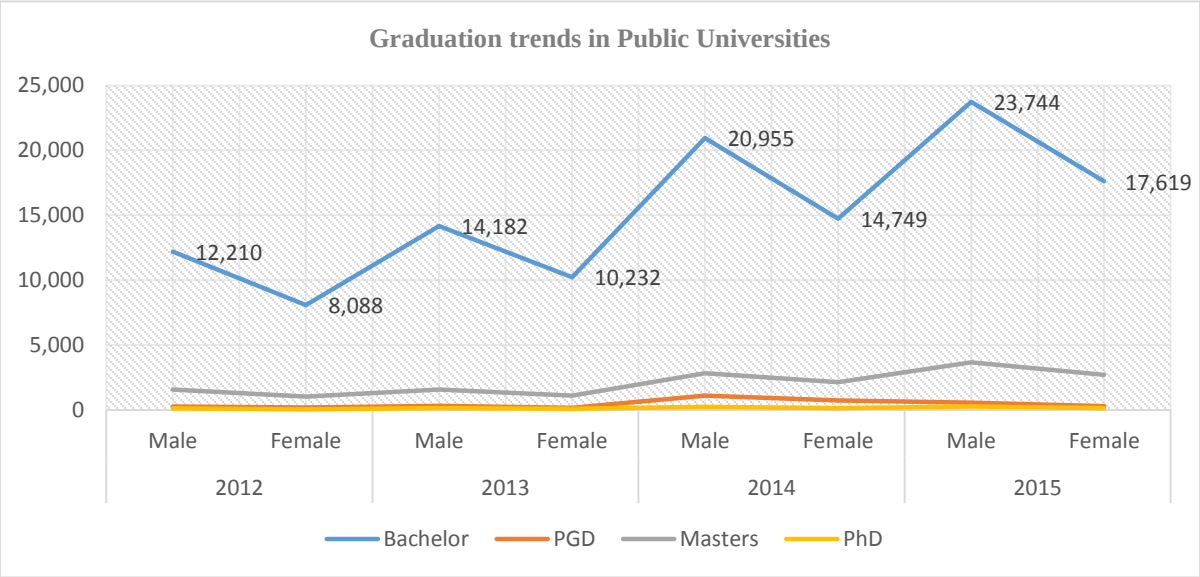

Figure 325: Graduation trends in Public Universities

7.3 Graduation trends in Private Universities

In private universities, a total of 13,324 students consisting of 6,138 male and 7,186 female graduated in 2012. The number increased to 22,323 students consisting of 10,785 male and 11,538

female in 2015. This represented an increase of 67.5%. It is imperative to note that more female than male students graduated in private universities. This is in line with the enrolment trends in private universities that showed an almost near parity for both genders. Over the four year period, a total of 74,067 students graduated with 35,292 being male and 38,775 being female students.

Private Universities	2012		2013		2014		2015		Total		Grand Total
	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	
Bachelor	5,202	6,223	7,355	8,396	8,031	9,034	9,251	10,247	29,839	33,900	63,739
PGD	72	48	190	122	172	108	303	261	737	539	1,276
Masters	847	909	1,375	1,242	1,192	1,115	1,202	1,011	4,616	4,277	8,893
PhD	17	6	27	15	23	19	33	19	100	59	159
Total	**6,138**	**7,186**	**8,947**	**9,775**	**9,418**	**10,276**	**10,789**	**11,538**	**35,292**	**38,775**	**74,067**

Table 48: Graduation trends in Private Universities

Figure 36 shows graduation trends for undergraduate and post-graduate programmes in private universities.

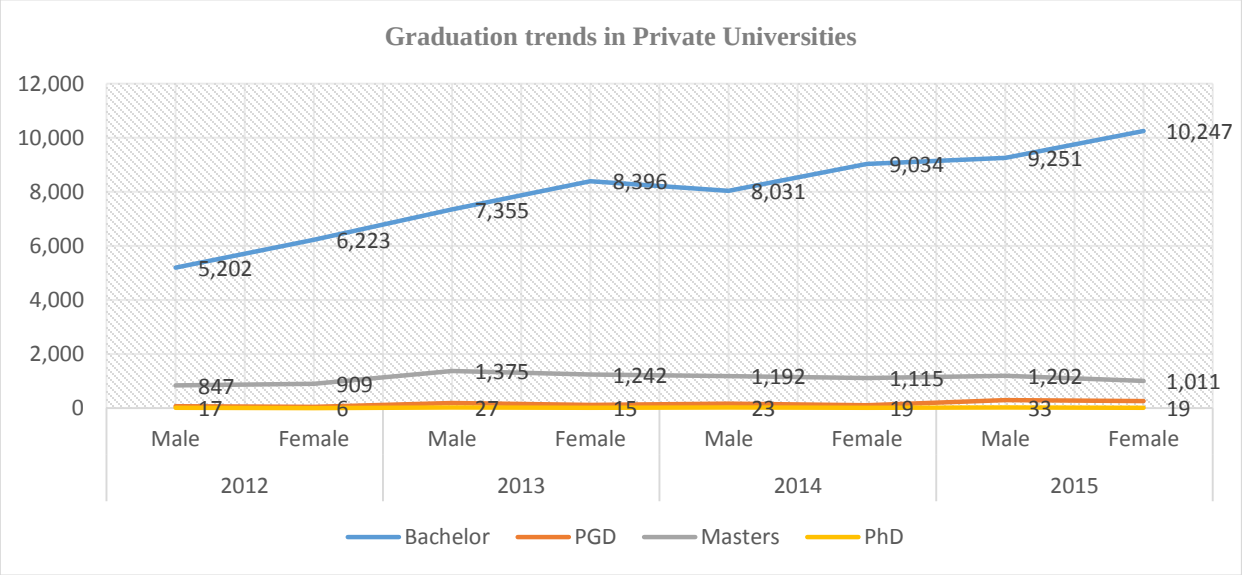

Figure 336: Graduation trends in Private Universities

7.4 Graduation trends in Public and Private Universities

The total number of students who graduated in 2012 was 36,847 consisting of 20,297 male and 16,550 female students. This increased to 71,347 students consisting of 39,013 male and 32,334 female students in 2015. This represented 93.6% increase. This is a positive step for the country

since it implies more skilled manpower for the country to meet its development agenda. Over the period 217,329 (119,028 male and 98,301 female) students graduated.

Doctoral graduates attained highest level of formal education, and typically included researchers who hold PhD. Based on 2015 graduation, 0.7% of students graduated with PhD compared to 0.5% in 2012. This is in contrast to OECD countries where on average 1.6% of those who graduate attained a PhD. In terms of gender the proportion of female who graduated with PhD in 2012 was 0.16% while in 2015 the proportion of female who graduated with PhD was 0.26%. This may be attributed, in part, to the low enrolment of females in PhD programmes. In OECD countries however, more females graduate across all programme levels. Figure 47 shows graduation in undergraduate and post-graduate programmes in both public and private universities.

Programme Levels	2012		2013		2014		2015		Total		Grand Total
	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	
Bachelor	17,412	14,311	21,537	18,628	28,986	23,783	32,995	27,866	100,930	84,588	185,518
PGD	336	244	507	304	1282	853	858	568	2983	1,969	4,952
Masters	2,415	1,932	2,949	2,340	4,022	3,248	4,865	3,726	14,251	11,246	25,497
PhD	134	63	167	102	268	159	295	174	864	498	1,362
Total	**20,297**	**16,550**	**25,160**	**21,374**	**34,558**	**28,043**	**39,013**	**32,334**	**119,028**	**98,301**	**217,329**

Table 49: Graduation trends in Public and Private Universities

Figure 37 shows graduation trends for undergraduate and post-graduate programmes in both public and private universities.

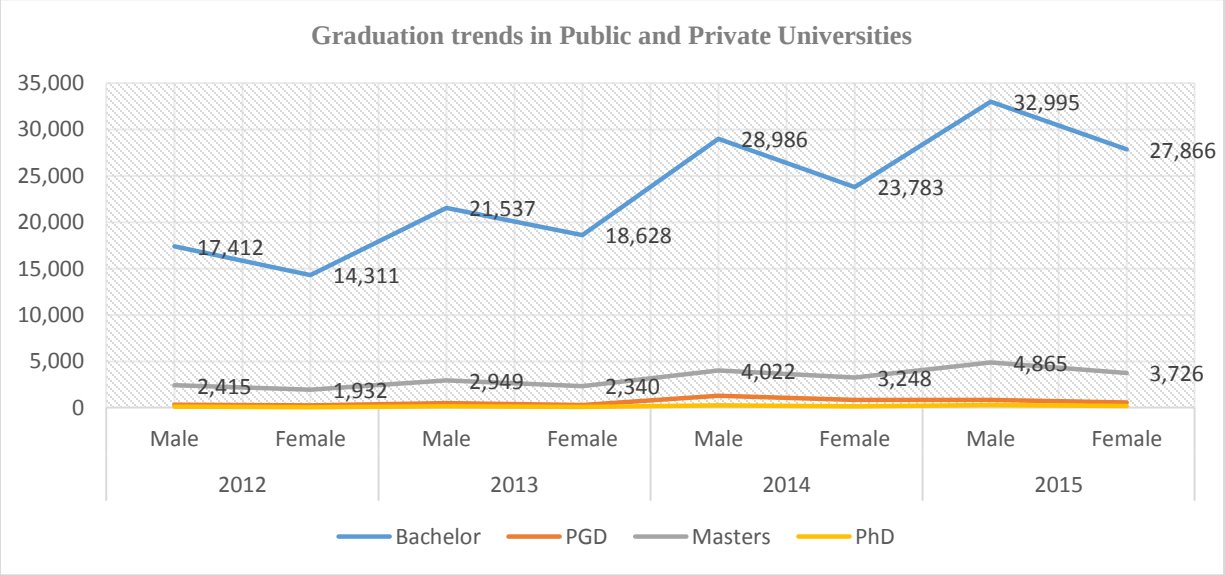

Figure 347: Graduation trends in Public and Private Universities

The completion rates were quite low at the post-graduate levels. This may be attributed to research timelines, for instance, the process of developing and approving the research proposals takes time. By the time the students are allowed to go to the field to collect data, it is usually towards the second half of their second year. They thus have barely enough time to collect e data and write the thesis in readiness for examination. In certain instances where they deal with human subjects, there is the added hurdle of the Ethical Review Committee which takes time given the limited number of institutions with authorized Ethical Review Committees (Status Report on State of Post-Graduate Training in Kenya, CUE, 2016).

7.5 Graduation trends per University Category

7.5.1 Public Chartered Universities Graduation Trends

In public chartered universities, there was a general increase in graduands numbers over the years. In 2012, a total of 23,182 students graduated consisting of 13,910 male and 9,272 female students. The number increased to 48,657 students in 2015 consisting of 27,981 male and 20,676 female students representing 110% increase. Over the four year period, a total of 141,768 (82,720 male and 59,048 female) students graduated from public chartered universities. This represented 65% of the total graduands for the period. This is shown in Table 50.

	2012			2013			2014			2015			Total		
Programme Level	M	F	T	M	F	T	M	F	T	M	F	T	M	F	T
Bachelor	11,966	7,999	19,965	13,878	10,082	23,960	20,755	14,640	35,395	23,507	17,501	41,008	70,106	50,222	120,328
PGD	264	196	460	317	182	499	1,110	745	1,855	555	307	862	2,246	1,430	3,676
Masters	1,563	1,020	2,583	1,569	1,098	2,667	2,815	2,126	4,941	3,657	2,713	6,370	9,604	6,957	16,561
PhD	117	57	174	140	87	227	245	140	385	262	155	417	764	439	1,203
Total	**13,910**	**9,272**	**23,182**	**15,904**	**11,449**	**27,353**	**24,925**	**17,651**	**42,576**	**27,981**	**20,676**	**48,657**	**82,720**	**59,048**	**141,768**

Table 50: Public Chartered Universities Graduation Trends

Figure 38 shows graduation trends for undergraduate and post-graduate programmes in public chartered universities.

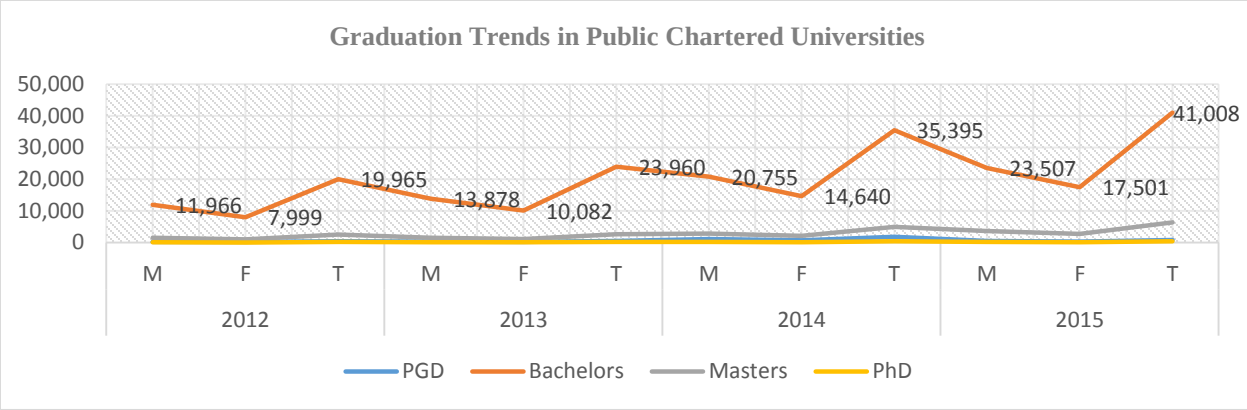

Figure 358: Graduation Trends in Public Chartered Universities

7.5.2 Public University Constituents Colleges

Table 51 shows graduation trends in public university constituent colleges. There was a general increase in graduation numbers over the years. In 2012, the total graduates were 341 students consisting of 249 male and 92 female students. The number went up to 363 in 2015 consisting of 243 male and 120 female students representing 6.5% increase. Over the four year period, a total of 1,494 (1,016 male and 478 female) students graduated from public university constituent colleges. This represented a paltry 0.7% of the total graduands for the period.

	2012			2013			2014			2015			Total		
Programme Level	**M**	**F**	**T**	**M**	**F**	**T**	**M**	**F**	**T**	**M**	**F**	**T**	**M**	**F**	**T**
Bachelor	244	89	333	304	150	454	200	109	309	237	118	355	985	466	1,451
PGD	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Masters	5	3	8	5	0	5	15	7	22	6	2	8	31	12	43
PhD	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	**249**	**92**	**341**	**309**	**150**	**459**	**215**	**116**	**331**	**243**	**120**	**363**	**1,016**	**478**	**1,494**

Table 51: Public University Constituent Colleges

Figure 39 shows graduation trends for undergraduate and post-graduate programmes in public universities constituent colleges.

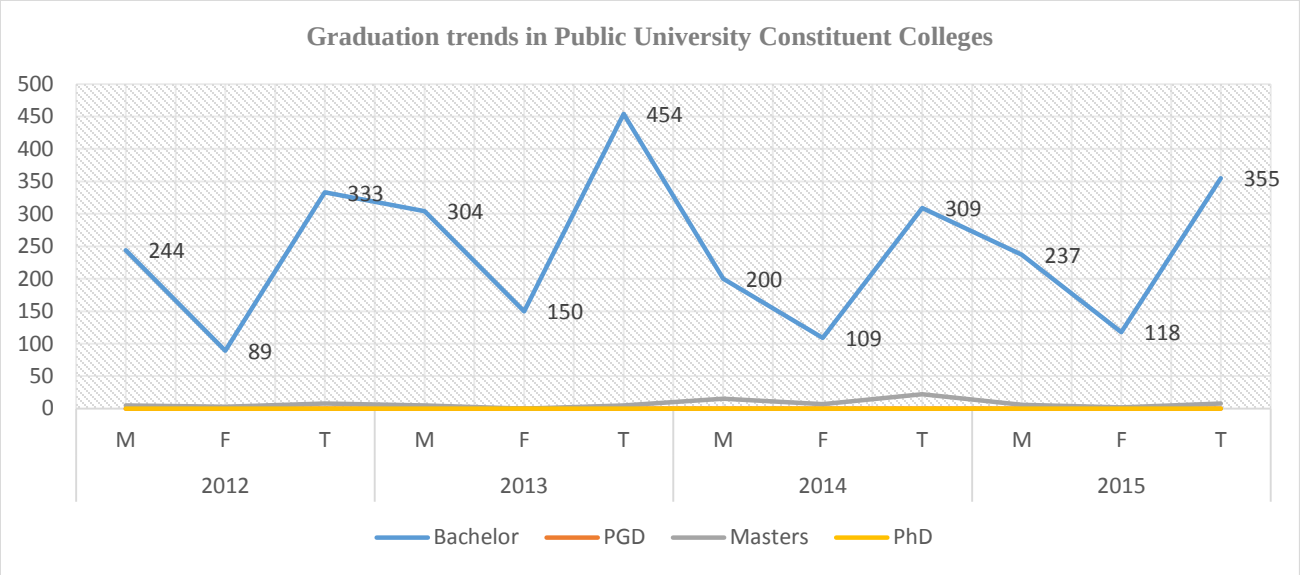

Figure 369: Graduation Trends in Public University Constituent Colleges

7.5.3 Private Chartered Universities Graduation Trends

Table 52 shows graduation trends in private chartered universities. There is a general increase in graduation numbers over the years. In 2012, a total of 12,904 students consisting of 5,876 male and 7,028 female graduated. The number increased to 21,326 students in 2015 consisting of 10,228 male and 11,098 female students representing 65% increase. Over the four year period, a total of 71,167 (33,531 male and 37,636 female) students graduated representing an increase of 32.7% of the total graduands for the period.

	2012			2013			2014			2015			Total		
Programme Level	**M**	**F**	**T**	**M**	**F**	**T**	**M**	**F**	**T**	**M**	**F**	**T**	**M**	**F**	**T**
Bachelor	4,995	6,114	11,109	7,105	8,288	15,393	7,714	8,864	16,578	8,941	10,043	18,984	28,755	33,309	62,064
PGD	61	36	97	64	25	89	74	36	110	113	53	166	312	150	462
Masters	803	872	1,675	1,281	1,170	2,451	1,137	1,088	2,225	1,145	988	2,133	4,366	4,118	8,484
PhD	17	6	23	25	15	40	23	19	42	33	19	52	98	59	157
Total	**5,876**	**7,028**	**12,904**	**8,475**	**9,498**	**17,973**	**8,948**	**10,007**	**18,955**	**10,232**	**11,103**	**21,335**	**33,531**	**37,636**	**71,167**

Table 52: Private Chartered Universities Graduation Trends

Figure 40 shows graduation trends for undergraduate and post-graduate programmes in private chartered universities.

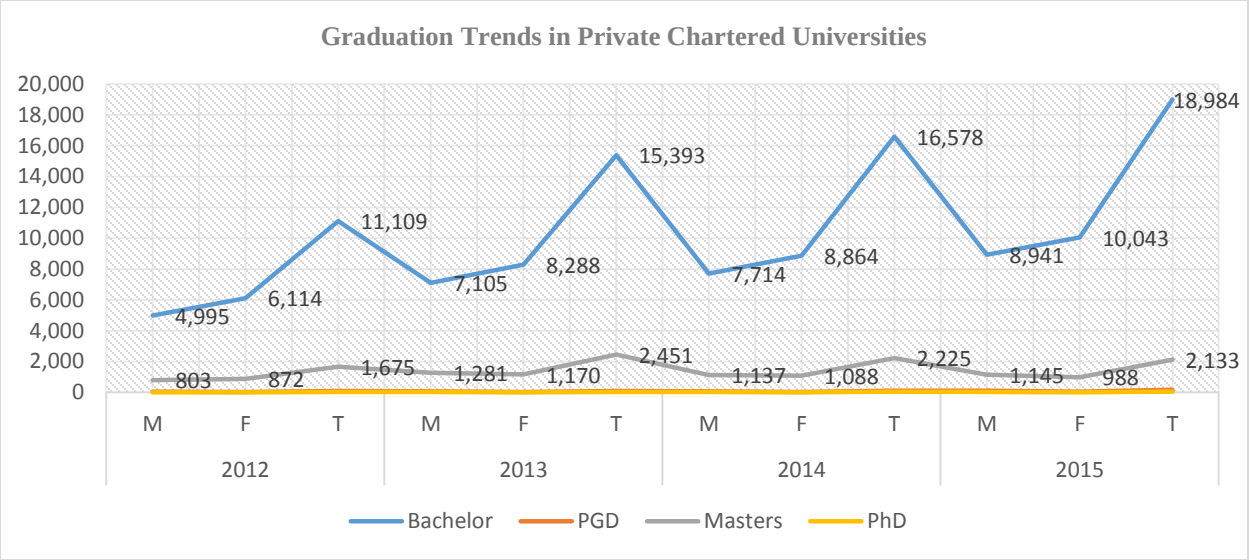

Figure 40: Graduation Trends in Private Chartered Universities

7.5.4 Private Constituent University Graduation Trends

Table 53 shows graduations in private university constituent colleges. There was a general increase in graduands over the years. In 2012, the total graduates were 225 students consisting of 185 male and 40 female students. The number increased to 327 students in 2015 consisting of 207 male and 120 female students representing 45% increase. Over the four year period, a total of 1,152 (801 male and 351 female) students graduated from private university constituent colleges. This represented a paltry 0.5% of the total graduands for the period.

	2012			2013			2014			2015			Total		
Programme Level	**M**	**F**	**T**	**M**	**F**	**T**	**M**	**F**	**T**	**M**	**F**	**T**	**M**	**F**	**T**
Bachelor	165	21	186	169	60	229	179	67	246	197	119	316	710	267	977
PGD	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Masters	20	19	39	48	54	102	13	10	23	10	1	11	91	84	175
PhD	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	**185**	**40**	**225**	**217**	**114**	**331**	**192**	**77**	**269**	**207**	**120**	**327**	**801**	**351**	**1,152**

Table 53: Private Constituent University Graduation Trends

Figure 41 shows graduation trends for undergraduate and post-graduate programmes in private university constituent colleges.

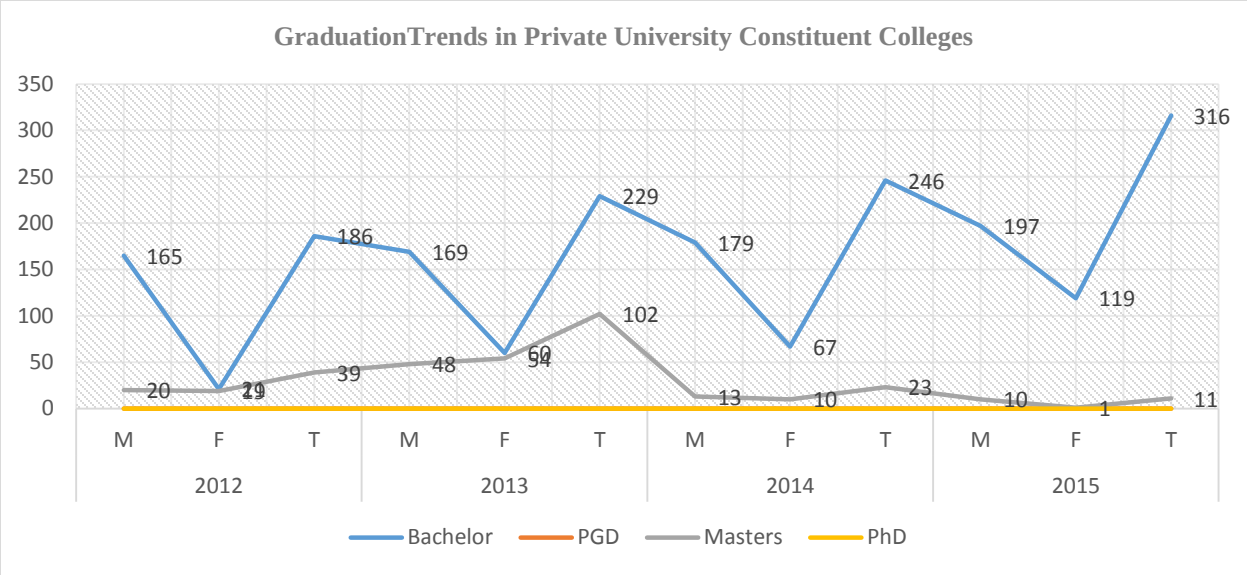

Figure 41: Private Constituent University Graduation Trends

7.5.5 Private Universities with Letters of Interim Authority Graduation Trends

Table 54 shows graduation trends in private universities with Letters of Interim Authority. There was a general increase in graduation numbers over the years. In 2012, the total graduands were 161 students consisting of 49 male and 112 female students. The number increased to 595 students in 2015 consisting of 294 male and 301 female students representing 270% increase. Over the four year period, a total of 1,491 (745 male and 746 female) students graduated. This represented a paltry 0.7% of the total graduands for the period.

	2012			2013			2014			2015			Total		
Programme Level	**M**	**F**	**T**	**M**	**F**	**T**	**M**	**F**	**T**	**M**	**F**	**T**	**M**	**F**	**T**
Bachelor	22	83	105	40	39	79	70	91	161	65	76	141	197	289	486
PGD	11	12	23	126	97	223	98	72	170	190	208	398	425	389	814
Masters	16	17	33	36	17	53	30	17	47	39	17	56	121	68	189
PhD	0	0	0	2	0	2	0	0	0	0	0	0	2	0	2
Total	**49**	**112**	**161**	**204**	**153**	**357**	**198**	**180**	**378**	**294**	**301**	**595**	**745**	**746**	**1,491**

Table 537: Private Universities with Letters of Interim Authority Graduation Trends

Figure 42 shows graduation trends for undergraduate and post-graduate programmes in private universities with Letters of Interim Authority.

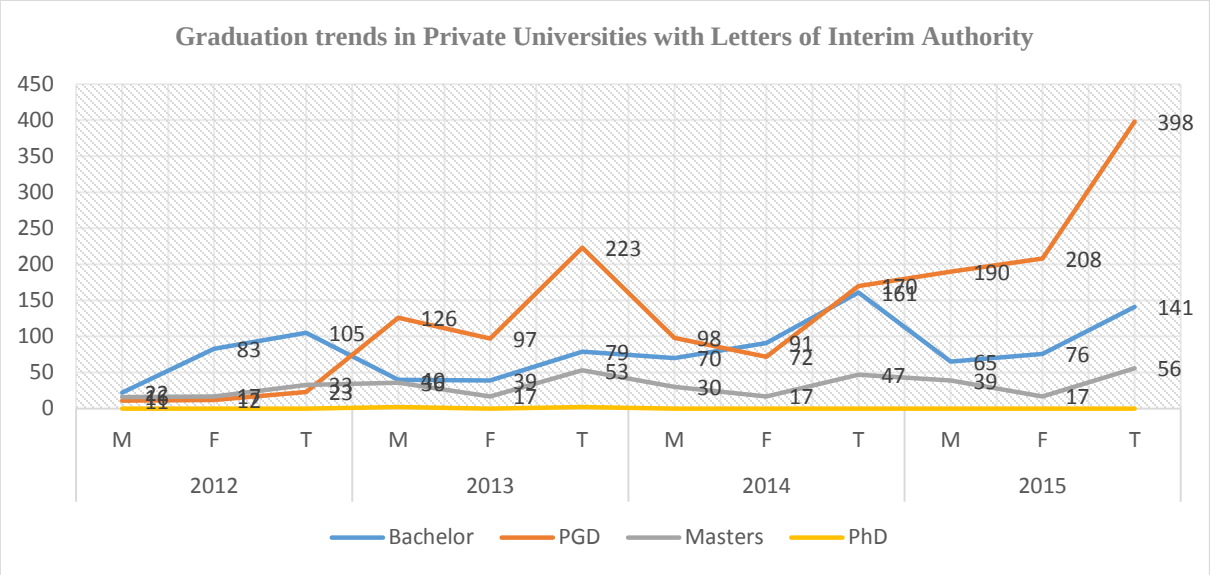

Figure 42: Private Universities with Letters of Interim Authority Graduation Trends

7.5.6 Registered Private Universities Graduation Trends

Table 55 shows graduation trends in registered private universities. There was a general increase in graduation numbers over the years. In 2012, the total graduands were 34 students consisting of 28 male and 6 female students. The number increased to 70 students in 2015 consisting of 56 male and 14 female students representing a 105% increase. Over the four year period, a total of 257 (215 male and 42 female) students graduated. This represented a paltry 0.1% of the total graduands for the period.

	2012			2013			2014			2015			Total		
Programme Level	**M**	**F**	**T**	**M**	**F**	**T**	**M**	**F**	**T**	**M**	**F**	**T**	**M**	**F**	**T**
PGD	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Bachelors	20	5	25	41	9	50	68	12	80	48	9	57	177	35	212
Masters	8	1	9	10	1	11	12	0	12	8	5	13	38	7	45
PhD	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	**28**	**6**	**34**	**51**	**10**	**61**	**80**	**12**	**92**	**56**	**14**	**70**	**215**	**42**	**257**

Table 55: Registered Private Universities Graduation Trends

Figure 43 shows graduation trends for undergraduate and post-graduate programmes in registered private universities.

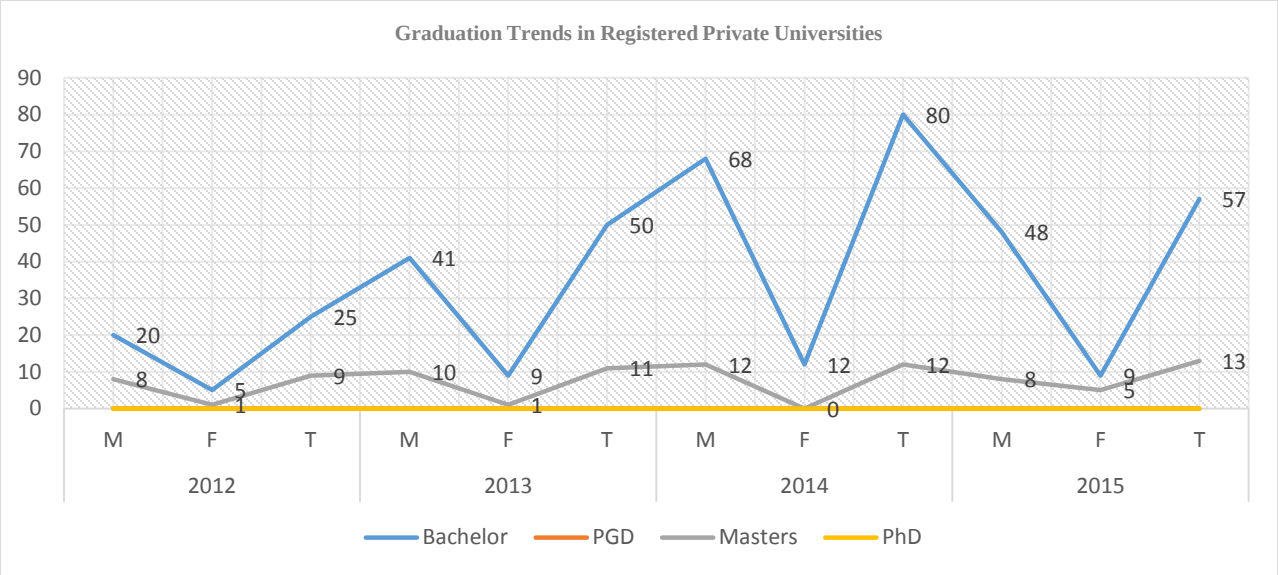

Figure 43: Registered Private Universities Graduation Trends

7.5.7 Graduation Trends in Public and Private Universities

Table 56 shows graduation trends in both public and private universities. There was a general increase in graduations over the years with a slight decrease in 2015. A total of 36,844 students graduated in 2012. In 2013, 2014 and 2015, the graduation numbers were 46,530; 62,639 and 71,338 respectively. This represented an increase of 26.3%, 34.6% and 13.9% respectively. The increase in the number of graduands in 2015 may be attributed to the fact that a number of universities usually conduct two graduations in one year with the data capturing only one cycle. Over the four year period the total graduates were 217,329. Of the four programmes levels, bachelor's degree accounted for the highest number of graduates at 185,518 representing 85%. This was followed by master's programme at 25,497 representing 12%, postgraduate diploma programme at 4,952 representing 2.4% and the least was doctorate programme at 1,362 representing 0.6%.

	2012			2013			2014			2015			Total		
Programme Level	**M**	**F**	**T**	**M**	**F**	**T**	**M**	**F**	**T**	**M**	**F**	**T**	**M**	**F**	**T**
Bachelor	17,412	14,311	31,723	21,537	18,628	40,165	28,986	23,783	52,769	32,995	27,866	60,861	100,930	84,588	185,518
PGD	336	244	580	507	304	811	1,282	853	2,135	858	568	1,426	2,983	1,969	4,952
Masters	2,415	1,932	4,347	2,949	2,340	5,289	4,022	3,248	7,270	4,865	3,726	8,591	14,251	11,246	25,497
PhD	134	63	197	167	102	269	268	159	427	295	174	469	864	498	1,362
Total	**20,297**	**16,550**	**36,847**	**25,160**	**21,374**	**46,534**	**34,558**	**28,043**	**62,601**	**39,013**	**32,334**	**71,347**	**119,028**	**98,301**	**217,329**

Table 56: Graduation Trends in Public and Private Universities

Figure 44 shows graduation trends for undergraduate and post-graduate programmes in all universities.

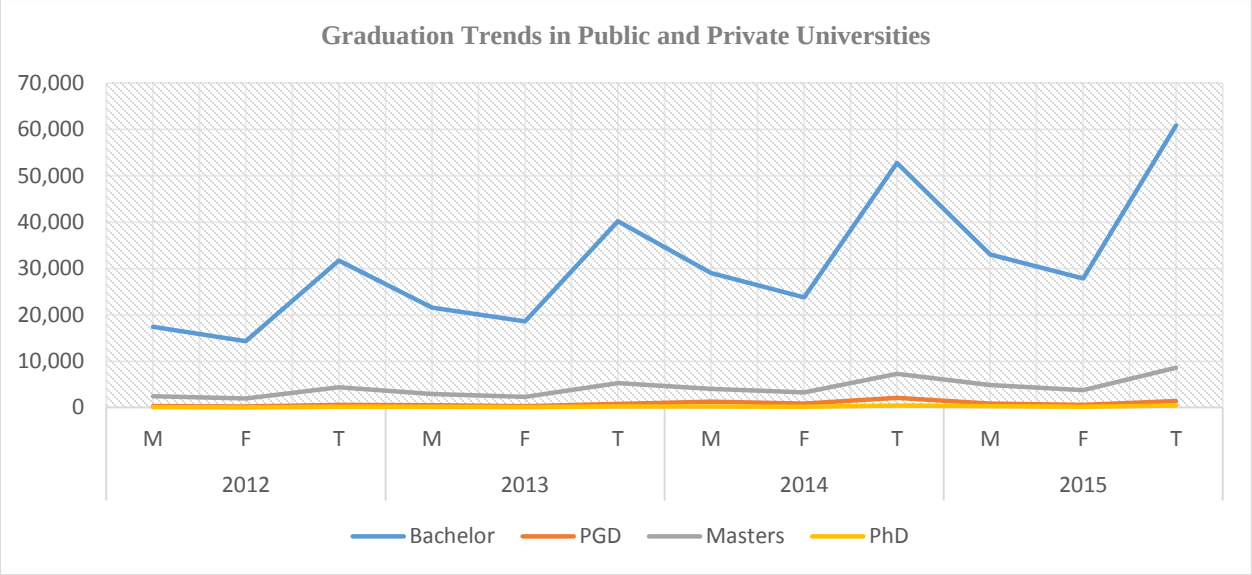

Figure 44: Graduation Trends in Public and Private Universities

Figure 45 shows the gender distribution among the graduates with male graduands representing 55% while female graduands representing 45% of the total graduands in all levels.

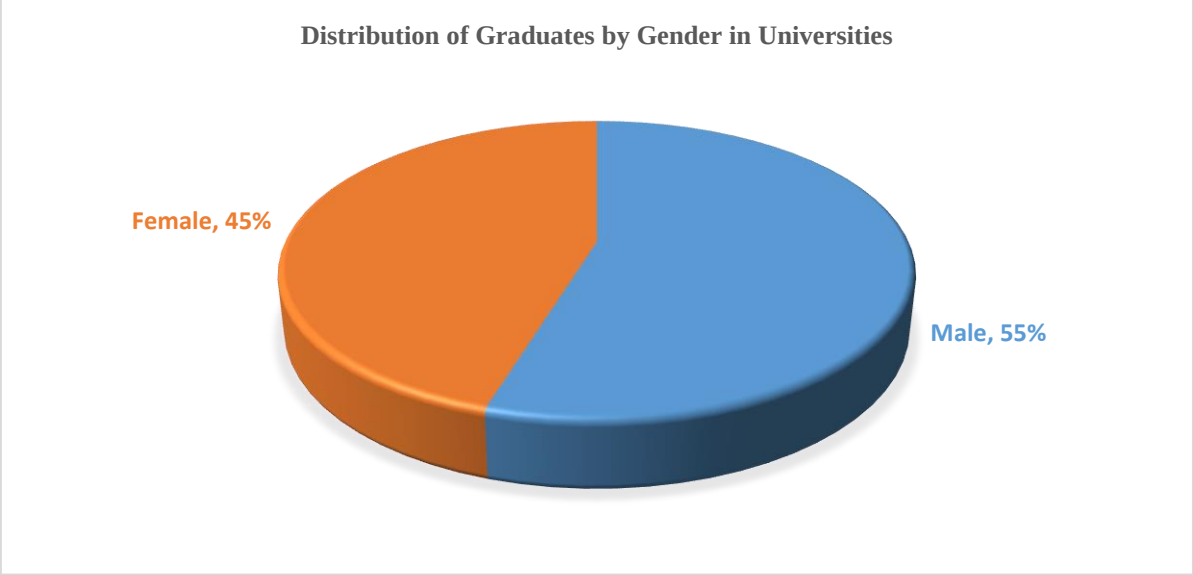

Figure 45: Distribution of Graduates by Gender in Universities

7.5.8 Graduation Trends per Cluster in Public and Private Universities

Table 57 shows the graduation trends per cluster in public and private universities. It is observed that majority of graduates were in the clusters of Business and Administration; Education (Arts); and Humanities and Arts with 31.0%, 18.0% and 8.3% respectively. Architecture, Computing, Engineering, Health and Welfare; and Life and Physical Sciences had 0.6%; 5.3%; 3.5%; 6.0% and 3.7% graduates respectively. Manufacturing and Veterinary clusters each had 0.1%. Comparatively, public universities graduated more students than private universities. This was mainly attributed to higher enrolments in public universities and the variety of programmes offered.

Clusters	Public Universities			Private Universities			Total			Proportion
	M	F	T	M	F	T	M	F	T	
Agriculture, Forestry and Fisheries	3,339	2,042	5,381	265	131	396	3,604	2,173	5,777	2.7%
Architecture	926	357	1,283	0	0	0	926	357	1,283	0.6%
Business and administration	22,748	16,669	39,417	13,175	14,827	28,002	35,923	31,496	67,419	31.0%
Computing	4,255	1,527	5,782	3,730	1,912	5,642	7,985	3,439	11,424	5.3%
Education (Arts)	12,826	11,309	24,135	6,388	8,594	14,982	19,214	19,903	39,117	18.0%
Education (Science)	3,950	2,183	6,133	1,630	994	2,624	5,580	3,177	8,757	4.0%
Engineering	6,209	1,364	7,573	31	6	37	6,240	1,370	7,610	3.5%
Environment	1,978	1,253	3,231	40	66	106	2,018	1,319	3,337	1.5%
Health and Welfare	4,397	3,909	8,306	2,221	2,465	4,686	6,618	6,374	12,992	6.0%
Humanities and Arts	6,877	6,926	13,803	2,502	1,641	4,143	9,379	8,567	17,946	8.3%
Journalism and Information	1,626	1,687	3,313	633	1,433	2,066	2,259	3,120	5,379	2.5%
Law	1,642	1,564	3,206	858	990	1,848	2,500	2,554	5,054	2.3%
Life Science and Physical Science	4,968	3,054	8,022	25	46	71	4,993	3,100	8,093	3.7%
Manufacturing	221	58	279	0	0	0	221	58	279	0.1%
Mathematics and Statistics	2,336	1,239	3,575	89	122	211	2,425	1,361	3,786	1.7%
Security and Conflict Resolution	1,354	584	1,938	109	100	209	1,463	684	2,147	1.0%
Services	743	862	1,605	65	139	204	808	1,001	1,809	0.8%
Social and Behavioral Science	2,373	1,949	4,322	1,053	2,214	3,267	3,426	4,163	7,589	3.5%
Teacher Training	812	930	1,742	817	1,527	2,344	1,629	2,457	4,086	1.9%
Veterinary	146	56	202	0	0	0	146	56	202	0.1%

Other	10	4	14	1,661	1,568	3,229	1,671	1,572	3,243	1.5%
Total	**83,736**	**59,526**	**143,262**	**35,292**	**38,775**	**74,067**	**119,028**	**98,301**	**217,329**	**100.0%**

Table 57: Graduation trends per Cluster in Public and Private Universities

7.6 Graduation Trends per Cluster Gender

The distribution of graduates by clusters of study is driven by the relative popularity of these clusters among students, the relative number of positions offered in universities and equivalent institutions, and the degree structure of the various disciplines in the country.

University graduates in most clusters of study are predominately male. This is especially true in the clusters of engineering, manufacturing, veterinary and architecture in which they represent 82%, 79%, 72% and 72%, respectively. In contrast, males represent only a small proportion of the degrees in the clusters of teacher training (40%) and journalism and information (42%). Table 58 shows disparities in graduation trends between male and female in various clusters.

Clusters	Total			Proportion	
	Male	Female	Total	Male	Female
Agriculture, Forestry and Fisheries	3,604	2,173	5,777	62%	38%
Architecture	926	357	1,283	72%	28%
Business and administration	35,923	31,496	67,419	53%	47%
Computing	7,985	3,439	11,424	70%	30%
Education (Arts)	19,214	19,903	39,117	49%	51%
Education (Science)	5,580	3,177	8,757	64%	36%
Engineering	6,240	1,370	7,610	82%	18%
Environment	2,018	1,319	3,337	60%	40%
Health and Welfare	6,618	6,374	12,992	51%	49%
Humanities and Arts	9,379	8,567	17,946	52%	48%
Journalism and Information	2,259	3,120	5,379	42%	58%
Law	2,500	2,554	5,054	49%	51%
Life Science and Physical Science	4,993	3,100	8,093	62%	38%
Manufacturing	221	58	279	79%	21%
Mathematics and Statistics	2,425	1,361	3,786	64%	36%
Security and Conflict Resolution	1,463	684	2,147	68%	32%
Services	808	1,001	1,809	45%	55%
Social and Behavioral Science	3,426	4,163	7,589	45%	55%
Teacher Training	1,629	2,457	4,086	40%	60%
Veterinary	146	56	202	72%	28%
Other	1,671	1,572	3,243	52%	48%
Total	**119,028**	**98,301**	**217,329**	**55%**	**45%**

Table 58: Graduation Trends per Cluster by Gender

Chapter Eight

Universities Income and Expenditure

8.1 Introduction

University education is an important sub-sector in national economic performance and a major determinant of an individual's social mobility. However, University education is costly, and faces competing imperatives for public spending. Its financing is therefore important and immensely sensitive politically.

Like most African countries, at independence (1963) university education in Kenya was historically free, with the public coffers covering both tuition and living expenses. This was due to the desire by the Government then to create highly trained manpower that would replace the departing colonial administrators. During the 1980's, many African countries experienced financial constraints due to poor economic performance, rapid population growth and structural adjustment programmes. Universities therefore faced stiff competition from other sectors for the limited government financial resources. A reduction in the budget for universities coupled with the poor performance of the sector in promoting access and equity led the government of Kenya to introduce a mechanism for cost-sharing and user charges in universities.

Under this new policy, students and/or their parents were required to cover both tuition fees and contribute to the costs of living expense. A student loan programme, the Higher Education Loans Board (HELB), was also established to enable the needy students to access university education. The underfunding of universities brought about the need for institutions to look for alternative income generating sources. This led to universities introducing a dual track tuition policy known as the privately sponsored student programme (PSSP) or Module II programme where students meet the full cost of university education without government subsidy.

This chapter discusses incomes and expenditures of universities in Kenya. It gives an analysis of the main sources of income received by universities and their expenditures. The income streams

are classified into four namely: government capitation, student fees, research grants and other incomes while the expenditure items are classified into four namely: staff costs, capital development, maintenance and other expenses. Finally, a comparison of the income and expenditure per university classification/category is discussed to establish whether a surplus or a deficit was realized by universities.

8.2 Summary of Income and Income Streams in Public and Private Universities

Table 59 shows that the university sector received a total income of Ksh. 345.9 Billion from all the four income streams. Public universities received the highest share of Ksh. 279.6 Billion while private universities received Ksh. 66.3 Billion. Private universities did any income from government. This explains their low income.

The highest income was received from students' fees at Ksh. 171.7 Billion. Though private universities' main source of income was students' fees, public universities had the largest share of income from students' fees receiving Ksh. 117.9 Billion compared to Ksh. 53.8 Billion received by private universities. Public universities were the only recipients of government capitation for the period, receiving Ksh. 133.4 Billion.

Universities attracted only Ksh. 16 Billion for research during the period. Of this, private universities had the least research grants at Ksh. 1.5 Billion compared to public universities research grants of Ksh. 14.5 Billion.

Income and Income Streams (Ksh. Millions) 2010-2014 Academic Years					
University Category	**Government Capitation**	**Student Fees**	**Research Grants**	**Other Incomes**	**Grand Total**
Public Universities	133,398.26	117,922.89	14,495.33	13,801.49	279,617.98
Private Universities	0	53,804.88	1,480.64	11,009.70	66,295.22
Total	**133,398.26**	**171,727.78**	**15,975.97**	**24,811.19**	**345,913.20**

Table 59: Public and Private Universities Income and Income Streams

8.3 Proportion of Income in Public and Private Universities

Students' fees contributed 50% of total incomes of all universities. This was followed by government capitation which contributed 39%, *other incomes* contributed 7% while Research grants contributed only 5%.

In public universities 48% of income came from government capitation, 42% from students' fees and research grants and *other incomes* each contributed 5%.

Students' fees contributed 81% of private universities incomes, *other incomes* contributed 17% and research grants contributed only 2%. Table 60 shows public and private universities proportion income.

Income and Income Streams (Ksh. Millions) 2010-2014 Academic Years				
University Category	**Government Capitation**	**Student Fees**	**Research Grants**	**Other Incomes**
Public Universities	48%	42%	5%	5%
Private Universities	0%	81%	2%	17%
Total	**39%**	**50%**	**5%**	**7%**

Table 60: Public and Private Universities Proportion Income

Figure 46 is a graphical illustration of the proportion of income streams in public and private universities.

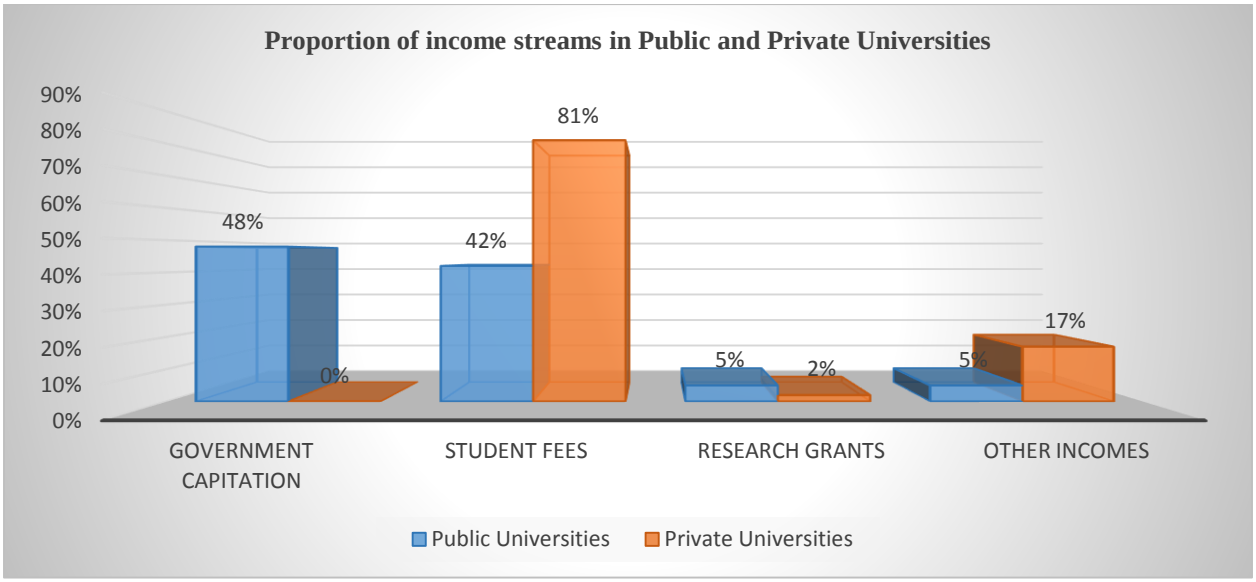

Figure 37: Proportion of income streams in Public and Private Universities

8.4 Universities Expenditure and Expenditure Items

University expenditure includes both current and capital expenditure. Current expenditure by universities takes account of the spending on university resources used each year for operations. It includes, for instance, the compensation of academic staff and other staff, students' meals or the renting of school buildings and other facilities. Capital expenditure by universities refers to

spending on assets that last longer than one year. It includes, for instance, spending on the construction, renovation and major repair of buildings.

Decisions about how resources are allocated affect the material conditions under which instruction takes place and can also influence the nature of instruction. This section describes the expenditure items on which income generated by universities is spent.

8.5 Summary of Expenditure and Expenditure Items in Public and Private Universities

University sector spent a total of Ksh. 354.91 Billion in the period under review. Public universities incurred the highest amount expenditure at Ksh. 281.49 Billion while private universities spent Ksh. 73.42 Billion. Staff costs took the highest amount at Ksh. 197.52 Billion. Of this, public universities spent Ksh. 165.88 Billion and private universities spent Ksh. 31.64 Billion. On 'other expenditures', the universities spent Ksh. 83.05 Billion. On this expenditure item, public universities spent Ksh. 60.74 Billion while private universities spent Ksh. 22.30 Billion.

On buildings, the universities spent ksh. 42.60 Billion with public universities spending ksh. 33.49 Billion while private universities spent ksh. 9.12 Billion. The universities spent the least amount on maintenance at ksh. 31.73 Billion. Of this amount, public universities spent ksh. 21.38 Billion while private universities spent ksh. 10.35 Billion. Table 61 shows the expenditure and expenditure items in public and private universities.

University Category	Expenditure and Expenditure Items (Ksh. Millions) 2010-2014 Academic Years				Total Expenditure
	Staff Costs	Building Costs	Maintenance Costs	Other Expenditure	
Public Universities	165,881.92	33,486.86	21,375.42	60,743.34	281,487.54
Private Universities	31,643.10	9,115.82	10,354.62	22,304.46	73,418.00
Total	**197,525.02**	**42,602.67**	**31,730.05**	**83,047.79**	**354,905.54**

Table 61: Expenditure and Expenditure Items in Public and Private Universities

8.6 Proportion of Expenditure Items

Universities spent most of their money on staff costs which took 56% of their total expenditure. 'Other expenditures' took 23%, building cost took 12% and maintenance took 9%. Public universities used 59% on staff costs, 22% on 'other expenditures', building cost took 12% and 8% was spent on maintenance. Private universities spent 43% on staff costs, 30% on other expenditure,

12% on building cost and 14% on maintenance cost. Table 62 shows the proportion of expenditure items by public and private universities.

Expenditure and Expenditure Items (Ksh. Millions) 2010-2014 Academic Years				
University Category	**Staff Costs**	**Building Costs**	**Maintenance Costs**	**Other Expenditure**
Public Universities	59%	12%	8%	22%
Private Universities	43%	12%	14%	30%
Total	**56%**	**12%**	**9%**	**23%**

Table 62: Public and Private Universities Proportion of Expenditure Items

Figure 47 shows a graphical illustration of the proportion of expenditure items in public and private universities

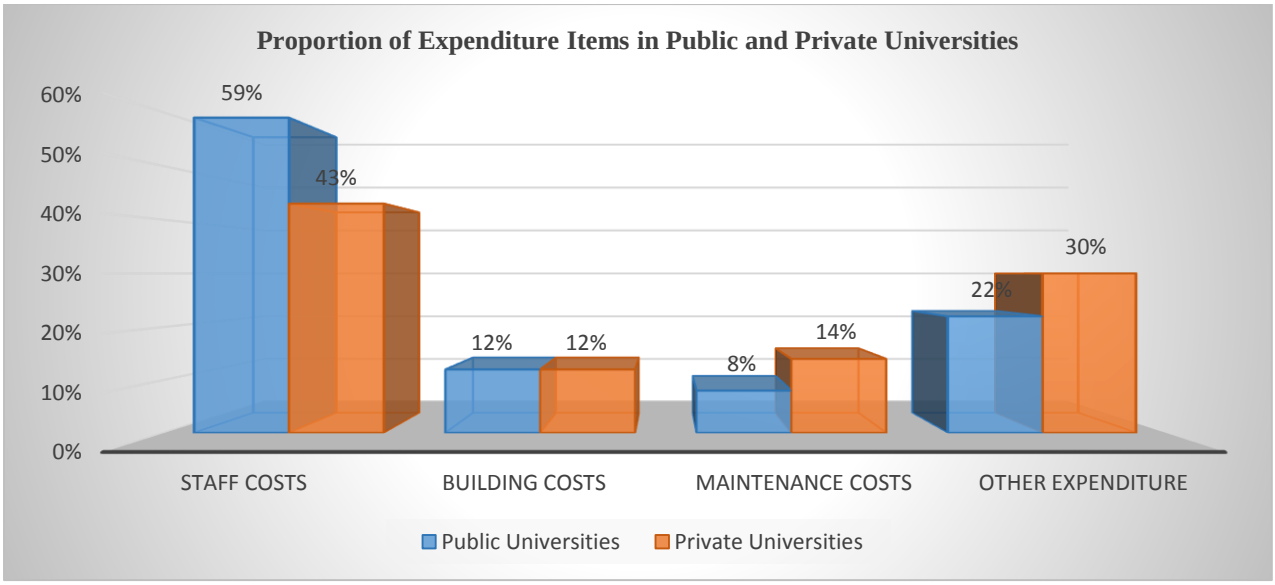

*Figure 38: **Proportion of Expenditure Items in Public and Private Universities***

8.7 Budget Surplus/Deficit Analysis

The University sector operated on a deficit of Ksh. 8,992.34 Million. Private universities had the highest deficit of Ksh. 7,122.78 Million. Public universities had a deficit of Ksh. 1,860.56 Million.

	Ksh. in Millions		
University Category	**Total Income**	**Total Expenditure**	**Deficit/Surplus**
Public University	279,617.98	281,487.54	**(1,869.56)**

Private University	66,295.22	73,418.00	**(7,122.78)**
Total	**345,913.20**	**354,905.54**	**(8,992.34)**

Table 63: Public and Private Universities budget surplus/deficit

8.8 Implication of the Findings for Kenya's University Education Sub-Sector

The University sub-sector is spending more resources than what it receives from the various income streams. This situation is worrying as the sub-sector is not able to sustain itself with the resources it currently receives from the various income streams. If this trend is not remedied then the university sub-sector may not be able to meet its objectives as specified in the Universities Act, 2012 section 3(1). The inadequate funding in universities will eventually lead to:

1. Stagnation or lack of growth in the sector as many universities will be unable to expand their resources such as infrastructure and staffing to support their activities.
2. The delivery of poor quality services by universities as the increasing enrollment will pile pressure on the limited resource available to support the growing numbers.
3. The development of only attractive programmes that attract more students. This will lead to skewed development of programmes in universities ignoring the development of the more expensive programmes especially in STEM which are key to the country's sustainable development agenda anchored in the Kenya Vision 2030.
4. Limit creativity and innovations in the country due to inadequate funding for undertaking research that would inform policy.
5. Unethical competition for students by universities in an attempt to finance the deficit. This will most likely lead to mounting of unnecessary programmes that produces graduates with irrelevant skills for the market.
6. Increased incidences of student's riots as pressure on limited resources leads to poor quality services by universities.
7. High staff turn-over since the sector will be unable to attract and retain qualified academic staff.

Chapter Nine

Major Findings

9.1 University Enrolment

University students' enrolment in Kenya has continued to grow steadily. The total enrolment of students in 2015 was 539,749 compared to 440,840 in 2014. This represented an increase of 22%. University students enrolment was highest in public universities (85%) compared to private universities (15%) across all levels of programmes. Of all the students enrolled in public and private universities, 59% ware male and 41% were female. On enrolment across all levels of education, 86% were in public universities and 14% in private universities with the highest enrolments registered at bachelor's level. At this level, public universities registered 86% while the rest were in private universities. Proportionally very few students enrolled at PhD level (1.3%). It is clear that most university student enrolments are found in public universities with many of them at undergraduate level and very few at PhD level. Rapid expansions in students enrolment is increasingly putting pressure to institutions in the absence of a corresponding increase in academic staff capacity and space. Even when the universities establish new positions to meet increasing enrolments, many of these posts are not filled. The resultant capacity deficit means that the quality of education provided may be affected. This therefore calls for concerted efforts by the players in the sector with support of the Government to fast track staff development processes.

Universities need to have well-organized mentoring programmes in place within each department or faculty that match new colleagues with more senior staff. Established academics can *help new colleagues acquaint themselves with important career- advancing and fulfilling strategies*; provide them with *guidance and support as they navigate the challenges of the scholarship, and involve them as collaborators in research endeavours*.

The gender dimension of postgraduate enrolments and its implications, not only for the composition of the future faculty staff, but also in absolute numbers, cannot be denied. Data cited in this report shows significant gaps in the proportion of male and female enrolments at the

postgraduate level. Of the 5,604 PhD holders, only 9% are female, while 26% are male. This is almost one third of the male.

Not surprisingly, this skewed distribution is replicated in the make-up of academic staff. Concerted *efforts have to be put in place to encourage female enrolment in postgraduate programmes, support them to stay in those programmes, ensure that they are able to complete their programmes successfully, and to mentor them to pursue academic careers*. These efforts will lead to growth in the *numbers of female staff who can then serve as role models and mentors for subsequent generations of female students and help them sustain their careers when they become academics*.

In enrolment, data from universities have revealed that the enrolment of female students is still lower than that of male students.

On the enrollment of Persons with Disability, the first observation to note was that universities did not have complete data for this particular group of persons. Their greatest challenge was their inability to discern disabilities and the lack of proper documentation. To mitigate these challenges is recommended that: University liaises with the Council for Persons with Disability (CPWD) to learn more about how to detect and accommodate the various disabilities; and strengthen affirmative actions for women and PWD to enhance their enrolment levels.

9.2 University Staffing

Data has revealed that there are glaring disparities in terms of the university type (public or private); qualification and gender. It is important to note that public universities possess the highest number of the staff at 74%; while private universities have a smaller proportion of 26%. This seems to suggest that public universities attract more staff because of the wide diversity of programmes which they have developed and offer. This result calls for the private universities to do more benchmarking with public universities to gain some competitive edge.

However, that does not suggest that there is adequate staff in the universities. In fact there exists a dire shortage of staff. This is attributed to the unattractiveness of academic career as conditions of service in universities fall behind those in other sectors of the economy and opportunities outside the continent beckon some of its brightest minds (Tettey, 2010; Mihyo, 2007).

The high student-staff ratios currently experienced in universities present a daunting challenge to the teaching faculty as a whole, but particularly so for those in the early stages of their career. The

overall staff student ratio was 1:34. The cluster, which had the highest staff to student ratio was education (science) with 1:200. This was followed by Education (Arts) with 1:54, and Service Courses with 1:48 - which is above the UNESCO accepted level of 1 to 30 (UNESCO, 2008). The proportion of staff with PhD (5,604) to the total enrolment of students (539,749) was 1 to 98.

The workload that accompanies responsibility for large student numbers imposes significant career-stalling burdens on young scholars. The anxiety that comes with such a burden, in a context that demands high standards of research productivity, can discourage potential academics. In order to address this concern, *institutions need to provide relief to those in the early stages of their careers while helping them to gain skills needed to meet career expectations. This can be done by giving them course releases, not assigning them the most highly-subscribed courses, and providing them access to professional development opportunities that enable them to acquire pedagogical skills and to obtain an aptitude for balancing the multiple demands of academia and personal life* (Tettey, 2010). Institutions' sensitivity and responsiveness to young employees' work-life circumstances is particularly helpful in attracting and retaining female academics whose careers tend to be significantly compromised by the contending demands of home and work.

9.3 Academic Programmes

Statistics have shown that most of the programmes in universities are Business and Administration; and Humanities and Arts. The national development agenda and priorities are articulated in Vision 2030 that seeks to transform Kenya into a middle-income country by 2030. Programmes offered are heavily skewed towards the two categories of Humanities and Arts; and Social Science, Business and Administration. A comparison of the programme offerings and the national development priorities presented in this report shows that universities need to increase their programme offerings in the other areas that are needed to meet the national development agenda.

There is a need for caution to avoid the perpetuation of trends where university courses are developed largely on narrow short-term, market-determined fields, such as business. This requires a shift from that myopic lens to a more strategic programme development that ensures a healthy balance between a concern for revenue generation and the urgency of building excellent capacity in areas of Health and Welfare, Science, Technology, Agriculture, Engineering, Manufacturing and Construction; and aligning research agendas closer to national development priority areas and sustainable development goals.

Support for postgraduate programme development similarly, should not be exclusively or overly determined by market-driven exigencies. Universities in Kenya, have to acknowledge that they do not have the ability to individually develop expertise in all fields. They need to work together to expand and improve on existing initiatives that build national or regional nodes of research and training.

More funding should be allocated to support STEM subjects and increased effort should be put to encourage students of both gender to enroll in STEM areas. The capacities of the universities to deliver quality training, research and innovation should be strengthened.

There should be deliberate effort by the government to provide incentives such as tax rebate on science equipment to support and encourage universities to mount STEM and other science-oriented programmes.

Public – Private Partnerships and involvement of stakeholders should be enhanced to contribute to development of the university sector.

9.4 Academic Staff by Rank

The study found that most of the academic staffs were found in public universities: 27% of the staff with PhD were in public universities compared to only 9% in private universities. The same pattern obtains for staff with masters qualifications. In all categories of universities, there were very few faculty staff at senior lecturer or professor levels. The bulk of staff were at lecturer and lower levels. This is a cause for worry as it means that there are very few academic leaders to mentor scholars in the sector.

Mentoring is a key part of the strategy that universities must adapt to support and grow the next generation of scholars. Building the pool of appropriate mentors is constrained in many institutions where a huge percentage of staff is at the rank of lecturer or below. This rank distribution will obviously limit the number of people who can be mentors for the large pool of younger scholars. It also puts a huge burden on established scholars who are willing to be mentors and waters down the quality of the relationship if the mentors are overextended (Buetel and Nelson, 2006). These challenges are even more constraining in relation to female academics because they are so few in senior ranks and thus the pool of female mentors is relatively small. Cultivating senior female academics who can advance gender-sensitive institutional policies and provide mentorship to their

junior colleagues should become a cardinal goal of all universities to be manifested in verifiable, measurable and recognized policies and programmes.

9.5 Graduation

Graduation signifies an important milestone in the academic and professional progression of students. Over the four year period, a total of 143,262 students graduated with 83,736 being male and 59,525 being female students. In 2012, a total of 23,523 students consisting of 14,159 male and 9,364 female graduated. This increased to 49,020 students consisting of 28,224 male and 20,796 female in 2015. This represented an increase of 108%. This represented an increase of 108%. While this is laudable achievement, there is concern that Universities are duplicating programmes and over- supplying graduates in some areas such in Humanities and business related courses. Again like in the programmes discussed earlier, this calls for a strategic focus on areas of Health and Welfare, Science, Technology, Agriculture, Engineering, Manufacturing and Construction; and aligning research agendas closer to national development priority areas.

The large discrepancy between postgraduate intake and output numbers can be attributed to several factors (Koen, 2007). For instance there is insufficient funding for postgraduate studies, which means that many students are unable to focus on their studies, thereby forcing them to take a long time to complete, or to drop out. Supervisors often do not provide adequate and constructive guidance to students, leading to frustration and loss of interest in academic careers. Furthermore, Universities do not have clearly articulated policies of expectations of students and supervisors; and lack mechanisms to effectively track progress.

Some observers have also argued that the deterioration in the human resource and infrastructural capacities of institutions have led to poor quality graduates who are unable to cope with the rigors of postgraduate education (Tetty, 2010).

Related to the problems of postgraduate training is the question of whether graduate programme accreditation needs to be rethought to ensure that resources are concentrated in those institutions that have the ability to offer good quality programmes. Many institutions offer postgraduate programmes for which they do not have the appropriate caliber of staff or resources to meet the intellectual needs of their students. The increasing ubiquity of programmes devoid of quality is a phenomenon that will only get worse if university expansion with attendant satellite campuses continue without stringent regulations and quality standards. Instead options can be explored that

would allow the development and support for centres of excellence in particular fields at national and regional levels.

Data revealed the existence of programmes at postgraduate level in established universities which have somewhat become moribund. They have had no students enrolling in them for several years. Further, many of these courses have not been reviewed in years to ascertain their quality and relevance in view of emerging issues. Such programmes find themselves unable to attract excellent students who could become academics. Some lower their entry criteria thereby drawing mediocre intakes who face challenges pursuing in the programme. The success of universities in fulfilling their academic mandate is critical to the enjoyment of public support for their needs, state responsiveness to their requests for financial assistance and synergies with other stakeholders such as business and industry. Failure to meet the expectations of these groups only erodes the institutions' credibility as well as their ability to build collaborative networks that would guarantee the realization of their goals (Jega, 2008).

Postgraduate training has tremendous catalytic potential to advance human development in the twenty-first century (Matos, 2008). Such an incentive is even more salient for Kenyan universities if they are to progress in the areas defined in Kenya Vision 2030 and Social Development Goals. It therefore demands the government, research bodies, universities, and the private sector to work together to develop creative and complementary funding models that promote high quality postgraduate training. As noted by the World Bank:

> *National R&D efforts [in Africa] are more likely to be sustainable when they are grounded in national postgraduate programmes and the professional networks that emerge around them. This linkage has borne fruit in Brazil, Chile and India, where coordinated government policy initially fostered master's (and subsequently PhD) programmes, actively encouraged research and tied these expanding research capacities to their national agricultural research programmes. . . Here, also, competitive funding mechanisms are an effective means of developing programmes of strength in postgraduate teaching and research (World Bank, 2008, 19).*

9.6 University Income and Expenditure

There is need to implement differentiated unit cost so that different programmes are funded differently according to the actual cost of implementing the programmes. Though this model is supposed to ensure equity in allocation of public finances, it is very important that universities provide accurate data for effectiveness. The use of inaccurate data in allocating finances using the

DUC model will negate the very reason it was proposed in the first place in ensuring equity in allocation of government finances.

The underfunding of universities calls for all stakeholders to explore innovative financing approaches. Since the bulk of university education financing comes from domestic resources, the political will of the government for national resource mobilization is a critical factor. In recent years, there has been rapid expansion of universities, increased enrolment of students, and greater diversity of subject matter. Thus, the myth that all universities are identical and should therefore be funded equally is no longer sustainable.

The contribution of the Higher Education Loans Board (HELB) in supporting needy students to access university education has been impeccable. This support has increased access to university education for many students and therefore the government needs to support this initiative by increasing its allocation to HELB. Apart from this, the Higher Education Loans Board needs to enhance its recovery strategies from beneficiaries. This will go a long way in ensuring that HELB is sustainable for a long time to come.

Research is one of the key objectives of universities education. The importance of research needs to be emphasized to create new ideas and innovations that drive economic growth. The need to strengthen a research culture in universities is necessary to drive the country's development agenda. It is therefore imperative that the Government's research funding initiatives need to be strengthened.

The number of students qualifying for universities has been increasing but due to the limited number of places in public universities very few of them are enrolled through government sponsorship. There is need to devise innovative initiatives that would see more of the qualifying students access university education to increase the resource development capacity of the country to realize the anticipated development.

9.7 Improving Data Collection Process

There were challenges in obtaining timely accurate information from universities. Equally disappointing were cases of some universities submitting incomplete data even on some straight forward issues like enrolment of privately sponsored students. To overcome this, appropriate regulations should be put in place, as part of articles of the Universities Act, to make the

completion and submission of the data tool mandatory, with clearly established deadlines and appropriate sanctions for institutions who default. To ensure that all institutions are measuring and reporting the same indicators, guidelines should be developed to operationalize the indicators (i.e. course clusters or domains). Major donors and partners should also leverage their influence to make the provision of regular data on the indicators established by the universities and research institutions a condition for support.

Universities and national tertiary education bodies need to develop a common template for collecting information. This is helpful for undertaking comparative analyses across different institutions in respect of common indicators and devising appropriate interventions.

While this study has revealed useful findings with policy implications for the country more data is required particularly in students' learning progression, drop outs, graduation rates and time-to-completion along with the gender dimensions of these indicators and the reasons for them. Qualitative interviews of those who quit as well as those who make it through will help shed more light on the quantitative data. Data on age and publication profiles of the academic staff would be very useful in establishing their productivity.

There is also need to have credible data on their nationals studying abroad. Although many of these individuals gain access to foreign institutions through their own efforts, thereby leaving no formal trails in their countries of origin, it is not an insurmountable task to create a database of such nationals. African missions abroad could liaise with relevant agencies and institutions in receiving countries to access information on their nationals studying and working as academics abroad. The value of such data lies in the ability of institutions at home to utilize it to negotiate with those who may be interested in employment and engagements of various sorts that enhance teaching and research capacity. There is a strong commitment on the part of African academics in the diaspora to contribute to capacity building in universities at home. It is important that their desire and enthusiasm are not dampened by a lack of reciprocity on the part of their compatriots at home.

CHAPTER 10

Conclusions and Recommendations

10.1 Conclusions

Analyzed data from the Universities presented in this report has provided a clearer picture of the critical variables in this sector which have far reaching policy implications. Data collected focused on six thematic areas namely: *enrolment, staffing, programmes, staff qualification, graduation trends and finance*. Data analysis was done based on three broad university categories. These were: *public chartered universities, private chartered universities and private universities with letters of interim authority* – all of which had their affiliates.

10.2 International Students

There were more international students in private universities than in public Universities, probably due to their strong affiliations to foreign universities, vibrant international linkages and marketing strategies. In most incidences, these foreign universities have had a part to play in the starting of these private universities. These international students are an important component of of the university community. There is need for more effort and national policies to encourage and promote participation of international students, in the Kenyan education system. This is especially so, given the fact that Kenyan graduates are already, highly accepted in the region and internationally. There are large numbers of Kenyan graduates in Uganda, Tanzania, Rwanda, South Sudan, Somalia, Namibia, South Africa, Lesotho and Botswana. Internationally Kenyan graduates are rated very high and receive favorable rating when enrolling for masters and doctoral studies in Europe, Australia, USA and elsewhere.

Recommendation 1: There is need for a deliberate national policy to encourage enrolment of international students at Universities in Kenya. These must include predictable university calendars, efforts to cub student unrest, availability of hostels on campus and functional international offices to address the unique needs of foreign students.

10.3 Students Living with Disabilities

The enrolment of students with disabilities is very small when compared to the overall enrolment at university level. This scenario is a clear indication that there are no deliberate structures in place to encourage and increase enrolment of this cadre of students. It is possible that there is under reporting of enrollment and participation of people living with disabilities at Universities in Kenya. Indeed, separate reports have shown, that most of our universities, are not well equipped to provide services to people living with disabilities.

Recommendation 2. There is need for Universities to work with the National Council for People Living with Disabilities, to improve and provide services to students and people living with all classes of disabilities.

10.4 Enrolment in STEM

In terms of, enrolment in both public and private universities, most students were registered in Business and Administration (22.3%) followed by Education Arts (14.7%) and Humanities and Arts (8.9%). This means that almost 50% of all students at Universities are enrolled in these three areas. This is in contrast to the science, technology and innovation courses whose enrolments account for less than 15%; and yet these are the areas that have been identified a being crucial for achieving vision 2030, and ensuring that the country moves to the next level of becoming a middle income economy. Although, several Government policies have identified the need to promote training in STEM, little effort has been put in place to ensure increased enrollment of students in these subjects at the university level.

Recommendation 3. There is need to implement the differentiated unit cost, as a way of promoting university enrolment in STEM subjects; and to put in place other measures to promote STEM.

Recommendation 4: There is need to ensure that at least 40 per cent of enrolment into science-based university academic programmes are female students.

10.5 Programmes on Offer

However, with respect to the number of programmes on offer, the clusters with the highest programmes across universities were Humanities and Arts (13.9%) followed by Business Administration (11.3%). Although we have a large number of programs in STEM especially in

public universities, enrolment in the programs is low. This is probably due to the fact that sciences require heavy investment in laboratories, technology and libraries.

Recommendation 5. There is need to support universities with grants to support establishment of science based programmes and to support teaching of the same. Tax waiver on science equipment would go a long way in helping boost investments in these areas. Training of science based teaching staff is currently being supported by the Government of Kenya.

Recommendation 6: There is need to intensify dissemination of information on career guidance to students and schools, to promote informed programme and career choice, especially as relates to employability, job-creation, national development agenda and student ability.

10.6 Academic Staff and Qualifications

Most academic staff were found in public universities (74%) as compared to those found in private universities (26%). A big number of them, 68% were male while 32% were female. Most of them were master's holders (53%) and only 34% were PhD holders with the highest numbers being found in public universities. Those at professor and senior lecturer ranks were only 10% and 13% respectively and the bulk of them at lecture rank (39%). Data shows that academic staff teaches in a large number of institutions, leaving them with very little time to mentor and supervise students. These have implications on the quality of university education offered as has negatively impacted progression and completion rates for masters and doctoral students.

Recommendation 7. There is need to strictly adhere to the CUE harmonized criteria for appointment and promotion of university academic staff on the required qualifications of staff, teaching loads and staff student ratios. There is need to national policy to guide recruitment and management of part time university academic staff and management of postgraduate programmes; to forestall delays and improve completion rates.

Recommendation 8: Introduce Discipline Differentiated Remuneration (DDR) for academic members of staff. The minimum DDRs will take into consideration the prevailing economic conditions, remuneration from competing employers and funds available from Government, among others.

10.7 Graduation Statistics

The graduation trends have been on the increase since 2012 hitting the highest in 2015. The graduation numbers were highest at bachelor's level (85%) and lowest at PhD level (0.6%). The highest number of graduands across universities in the various clusters was in Business and Administration (31%) and lowest in science-based clusters. The few PhD graduands and low numbers of those graduating from science-based clusters do not support the science, technology and innovation orientation that the government has pronounced for development. Although more than 6,000 students are enrolled at the PhD level, less than 400 graduate in a year, pointing at a process that is not being managed well.

Recommendation 9. There is need to improve conditions for post graduate (masters and PhD) research training by training supervisors, setting and adhering with stringent conditions for student enrolment and progression and putting in place online monitoring systems for post graduate student progression.

10.8 University Income and Expenditure

Data shows that university income was mostly from Government capitation (for public universities) and students fees (for all universities). Government capitation constitutes the highest revenue for Public universities while private universities relied mostly on student fees. Other sources of income include research grants, consultancies and other incomes. Data shows that, private universities receive the highest income from school fees (81%) followed by other incomes (17%). On expenditure in both public and private universities, the highest expenditure was on staff costs. There is potential in both public and private universities in terms of income and income streams which can be maximized in support of university-level education. Although separate reports indicate that infrastructure in most universities is in need to upgrading, little is being done to address this issue. The amount of research grants being received was also low, so as expenditure on the same, thereby negating performance one of the most important functions of universities; which is carrying out research.

Recommendation 10. There is need for universities to diversify their sources of income and increase their allocation to research.

Recommendation 11: There is need to encourage public-private-partnerships in funding university education including but not limited to development of endowments for scholarships,

development and shares, providing naming rights to major sponsors of buildings and other facilities, grants for research and development.

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Annexes

Annex 1: Programmes per Cluster in Public Chartered Universities

Chartered Public Universities	Programmes per Category				Grand Total	Proportion
	Post-graduate	Bachelor	Master	Doctorate		
University of Nairobi	26	98	221	81	**426**	**17%**
Moi University	1	68	59	27	**155**	**6%**
Kenyatta University	3	98	108	15	**224**	**9%**
Egerton University	3	58	56	26	**143**	**6%**
Jomo Kenyatta University of Agriculture and Technology	14	88	73	48	**223**	**9%**
Maseno University	2	71	76	61	**210**	**8%**
Masinde Muliro University of Science and Technology	6	54	53	32	**145**	**6%**
Dedan Kimathi University of Technology	0	20	7	2	**29**	**1%**
Chuka University	1	36	20	16	**73**	**3%**
Technical University of Kenya	0	64	0	0	**64**	**3%**
Technical University of Mombasa	1	32	7	0	**40**	**2%**
Pwani University	5	45	7	4	**61**	**2%**
Kisii University	1	80	30	9	**120**	**5%**
University of Eldoret	0	55	46	30	**131**	**5%**
Maasai Mara University	0	33	15	6	**54**	**2%**
Jaramogi Oginga Odinga University of Science and Technology	0	28	33	37	**98**	**4%**
Laikipia University	1	28	7	7	**43**	**2%**
South Eastern Kenya University	0	40	23	6	**69**	**3%**
Meru University of Science and Technology	2	31	9	7	**49**	**2%**
Multimedia University of Kenya	0	18	0	0	**18**	**1%**
University of Kabianga	0	29	22	0	**51**	**2%**
Karatina University	2	37	33	10	**82**	**3%**
Kibabii University	4	18	17	9	**48**	**2%**
Total	**72**	**1,129**	**922**	**433**	**2,556**	**100%**

Annex 2: Programmes per Cluster in Public University Constituent Colleges

Public University Constituent Colleges	Programmes per Category				Grand Total	Proportion
	Post-graduate	Bachelor	Master	Doctorate		
Murang'a University College	0	13	1	0	14	7%
Machakos University College	2	26	3	0	31	16%
Co-operative University College of Kenya	0	5	0	0	5	3%
Embu University College	0	21	11	12	44	22%

Kirinyaga University College	0	8	0	0	8	4%
Rongo University College	0	40	26	17	83	42%
Taita Taveta University College	0	8	4	0	12	6%
Total	**2**	**121**	**45**	**29**	197	100%

Annex 3: Programmes per Cluster in Chartered Private Universities

Chartered Private Universities	Programmes per Category				Grand Total	Proportion
	Bachelor	Postgraduate Diploma	Master	Doctorate		
University of Eastern Africa, Baraton	42	1	13	2	**58**	**11%**
Catholic University of Eastern Africa (CUEA)	19	2	20	12	**53**	**10%**
Daystar University	46	1	14	2	**63**	**12%**
Scott Christian University	10	1	5	0	**16**	**3%**
United States International University (USIU)	14	0	8	3	**25**	**5%**
Africa Nazarene University	15	0	8	1	**24**	**5%**
Kenya Methodist University	29	1	16	5	**51**	**10%**
St. Paul's University	15	0	6	2	**23**	**4%**
Pan African Christian University	8	1	5	0	**14**	**3%**
Strathmore University	11	0	13	5	**29**	**5%**
Kabarak University	15	0	5	1	**21**	**4%**
Mount Kenya University	40	2	28	6	**76**	**14%**
Africa International University	10	2	14	5	**31**	**6%**
Kenya Highlands Evangelical University	4	0	0	0	**4**	**1%**
Great Lakes University of Kisumu	17	2	8	2	**29**	**5%**
KCA University	3	0	4	0	**7**	**1%**
Adventist University of Africa	0	0	8	1	**9**	**2%**
Total	**298**	**13**	**175**	**47**	**533**	**100%**

Annex 4: Programmes per Cluster in Private University Constituent Colleges

Private University Constituent Colleges	Programmes per Category				Grand Total	Proportion
	Post-graduate	Bachelor	Master	Doctorate		
Hekima University College	0	1	1	0	2	6%
Tangaza University College	0	10	9	2	21	68%
Marist International University College	0	2	0	0	2	6%
Regina Pacis University College	0	1	0	0	1	3%
Uzima University College	0	5	0	0	5	16%
Total	**0**	**14**	**10**	**2**	**31**	**100%**

Annex 5: Programmes per Cluster in Private Universities with Letters of Interim Authority

Private Universities with Letters of Interim Authority	Programmes per Category				Grand Total	Proportion
	Post-graduate	Bachelor	Master	Doctorate		
Kiriri Women's University of Science and Technology	0	3	0	0	3	4%
Aga Khan University	0	1	1	0	2	3%
Gretsa University	0	5	0	0	5	7%
Presbyterian University of East Africa	2	5	1	0	8	11%
The East African University	0	18	0	0	18	25%
Management University of Africa	2	3	0	1	6	8%
Riara University	0	4	0	0	4	5%
Pioneer International University	5	1	0	0	6	8%
UMMA University	0	6	0	0	6	8%
International Leadership University	0	5	5	2	12	16%
Zetech University	0	3	0	0	3	4%
Total	**9**	**54**	**7**	**3**	**73**	**100%**

Annex 6: Programmes per Cluster in Registered Universities

Registered Private Universities	Programmes per Category				Grand Total	Proportion
	Post-graduate diploma	Bachelor	Master	Doctorate		
KAG EAST University	0	11	3	4	18	100%

Annex 7: Summary of Programmes in Kenyan Universities

Clusters	Programmes per Clusters in Public and Private Universities							Proportion
	Public Chartered Universities	Public Universities Constituent Colleges	Private Chartered Universities	Private Universities Constituent Colleges	Private Universities with LIA	Registered Private Universities	Grand Total	
Agriculture, Forestry and Fisheries	324	30	8	0	0	1	**363**	11%
Architecture	26	0	0	0	0	0	**26**	1%
Business and administration	236	32	97	2	16	2	**385**	11%
Computing	98	11	44	0	10	0	**163**	5%
Education (Arts)	212	7	48	3	17	0	**287**	8%
Education (Science)	47	3	5	1	0	0	**56**	2%
Engineering	134	4	7	0	0	0	**145**	4%
Environment	120	6	8	0	0	0	**134**	4%
Health and Welfare	242	2	48	6	6	0	**304**	9%

Humanities and Arts	298	28	127	8	11	3	**475**	14%
Journalism and Information	59	10	12	1	2	1	**85**	2%
Law	6	0	6	0	1	0	**13**	0%
Life Science and Physical Science	332	20	13	0	0	0	**365**	11%
Manufacturing	9	1	1	0	0	0	**11**	0%
Mathematics and Statistics	117	10	12	0	1	0	**140**	4%
Security and Conflict Resolution	40	1	7	1	0	1	**50**	1%
Services	54	5	9	0	3	0	**71**	2%
Social and Behavioral Science	112	8	46	8	2	1	**177**	5%
Teacher Training	47	18	27	0	0	2	**94**	3%
Veterinary	31	0	1	0	0	0	**32**	1%
Other	12	1	7	1	4	7	**32**	1%
Total	**2,556**	**197**	**533**	**31**	**73**	**18**	**3,408**	**100%**

Annex 8: Enrolment in public universities

Clusters	Bachelor			Postgraduate Diploma			Master			PhD			Total
	M	F	T	M	F	T	M	F	T	M	F	T	
Agriculture, Forestry and Fisheries	15,465	9,313	24,778	0	0	0	1,135	496	1,631	183	56	239	26,648
Architecture	3,347	1,530	4,877	0	0	0	137	35	172	7	1	8	5,057
Business and Administration	42,659	29,723	72,382	48	26	74	11,121	7,433	18,554	1,692	629	2,321	93,331
Computing	11,353	2,526	13,879	8	8	16	818	227	1,045	143	54	197	15,137
Education(Arts)	34,110	30,970	65,080	259	123	382	1,567	1,579	3,146	347	232	579	69,187
Education (Science)	17,743	8,764	26,507	0	0	0	137	104	241	16	8	24	26,772
Engineering	17,088	3,398	20,486	64	15	79	877	197	1,074	61	10	71	21,710
Environment	4,631	3,752	8,383	2	2	4	621	306	927	184	89	273	9,587
Health &Welfare	10,111	9,453	19,564	62	13	75	2,045	1,592	3,637	174	149	323	23,599
Humanities & Arts	16,821	16,988	33,809	85	44	129	3,207	2,592	5,799	302	140	442	40,179
Journalism and Information	5,579	4,666	10,245	0	0	0	429	410	839	131	83	214	11,298
Law	1,605	1,643	3,248	0	0	0	194	200	394	0	0	0	3,642
Life Science& Physical Science	21,901	10,229	32,130	34	5	39	1,283	594	1,877	259	80	339	34,385
Manufacturing	1,932	357	2,289	0	0	0	1	0	1	0	0	0	2,290
Mathematics & Statistics	9,203	4,168	13,371	43	10	53	533	219	752	145	75	220	14,396
Security and Conflict resolution	3,303	1,245	4,548	0	0	0	366	181	547	26	5	31	5,126
Services	3,855	4,465	8,320	0	0	0	244	310	554	29	31	60	8,934
Social& Behavioral Science	16,852	12,713	29,565	6	2	8	2,050	1,403	3,453	370	95	465	33,491
Teacher Training	2,477	2,291	4,768	57	52	109	409	178	587	130	79	209	5,673

Veterinary	745	277	1,022	0	0	0	44	15	59	29	12	41	1,122
Other	5,068	4,902	9,970	0	0	0	189	93	282	3	0	3	10,255
Total	**245,848**	**163,373**	**409,221**	**668**	**300**	**968**	**27,407**	**18,164**	**45,571**	**4,231**	**1,828**	**6,059**	**461,819**

Annex 9: Enrolment in Private Universities

Clusters	Bachelor			Postgraduate Diploma			Master			PhD			Total
	M	F	T	M	F	T	M	F	T	M	F	T	
Agriculture, Forestry and Fisheries	147	68	215	0	0	0	39	5	44	5	4	9	268
Architecture	0	0	0	0	0	0	0	0	0	0	0	0	0
Business and Administration	10,761	11,910	22,671	20	26	46	2,133	1,849	3,982	116	77	193	26,892
Computing	4,912	2,134	7,046	0	0	0	328	135	463	1	3	4	7,513
Education(Arts)	4,295	4,801	9,096	180	71	251	383	404	787	21	26	47	10,181
Education (Science)	2,116	1,544	3,660	0	0	0	0	0	0	0	0	0	3,660
Engineering	146	16	162	0	0	0	0	0	0	0	0	0	162
Environment	84	153	237	0	0	0	11	8	19	0	0	0	256
Health &Welfare	2,539	3,847	6,386	0	0	0	301	283	584	4	5	9	6,979
Humanities & Arts	2,301	1,146	3,447	20	9	29	1,550	600	2,150	270	64	334	5,960
Journalism and Information	915	2,014	2,929	0	0	0	139	230	369	15	12	27	3,325
Law	1,602	1,917	3,519	0	0	0	0	0	0	0	0	0	3,519
Life Science& Physical Science	62	115	177	0	0	0	4	3	7	0	0	0	184
Manufacturing	0	3	3	0	0	0	0	0	0	0	0	0	3
Mathematics & Statistics	183	217	400	0	0	0	18	9	27	7	4	11	438
Security and Conflict resolution	244	359	603	0	0	0	86	75	161	0	0	0	764
Services	122	285	407	0	0	0	0	0	0	0	0	0	407
Social& Behavioral Science	1,334	2,514	3,848	0	0	0	354	572	926	42	66	108	4,882
Teacher Training	307	589	896	25	17	42	86	170	256	55	23	78	1,272
Veterinary	25	1	26	0	0	0	0	0	0	0	0	0	26
Other	568	232	800	27	29	56	73	42	115	148	120	268	1,239
Total	**32,663**	**33,865**	**66,528**	**272**	**152**	**424**	**5,505**	**4,385**	**9,890**	**684**	**404**	**1,088**	**77,930**

Annex 10: Enrolment in Public Chartered Universities

Name of University	Bachelor			Postgraduate Diploma			Masters			PhD			Grand Total
	M	F	T	M	F	T	M	F	T	M	F	T	
University of Nairobi	49,998	31,591	81,589	185	93	278	9,300	6,662	15,962	620	266	886	98,715
Moi University	23,452	20,856	44,308	16	7	23	984	875	1,859	323	213	536	46,726
Kenyatta University	33755	25964	59719	87	51	138	5808	4716	10524	604	506	1110	71,491
Egerton University	12841	7362	20203	3	1	4	1793	323	2116	51	29	80	22,403
Jomo Kenyatta University of Agriculture And Technology	15180	9979	25159	205	63	268	4751	2591	7342	1487	119	1606	34,375

Maseno University	9646	6247	15893	111	31	142	1209	756	1965	191	81	272	18,272
Dedan Kimathi University of Technology	4279	1470	5749	0	0	0	218	64	282	41	24	65	6,096
Chuka University	6116	3819	9935	14	8	22	298	214	512	41	33	74	10,543
Technical University of Kenya	7586	2446	10032	0	0	0	0	0	0	0	0	0	10,032
Technical University of Mombasa	4991	1782	6773	1	1	2	69	31	100	0	0	0	6,875
Pwani University	3601	2452	6053	0	0	0	160	35	195	20	7	27	6,275
Kisii University	7196	5620	12816	31	28	59	275	276	551	65	55	120	13,546
Masinde Muliro University f Science And Technology	8369	5415	13784	0	0	0	162	144	306	88	53	141	14,231
Maasai Mara University	4799	3583	8382	0	0	0	266	256	522	84	151	235	9,139
South Eastern Kenya University	4048	2436	6484	0	0	0	198	167	365	28	21	49	6,898
Meru University of Science and Technology	2941	1192	4133	0	0	0	118	78	196	8	2	10	4339
Multimedia University	2568	1373	3941	0	0	0	0	0	0	0	0	0	3941
Jaramogi Oginga Odinga University of Science and Technology	5502	3605	9107	0	0	0	946	313	1259	234	56	290	10656
Laikipia University	4630	3752	8382	12	16	28	278	195	473	79	44	123	9006
Kabianga University	1249	1017	2266	0	0	0	0	0	0	0	0	0	2266
University of Eldoret	13611	9576	23187	0	0	0	186	194	380	166	105	271	23838
Karatina University	4436	2929	7365	0	0	0	118	88	206	36	29	65	7636
Kibabii University	3435	1761	5196	0	0	0	92	54	146	0	0	0	5342
Total	**234,229**	**156,227**	**390,456**	**665**	**299**	**964**	**27,229**	**18,032**	**45,261**	**4166**	**1794**	**5960**	**442,641**

Annex 11: Enrolment in Public Universities Constituent Colleges

Name of Universities	Bachelor			Postgraduate Diploma			Masters			PhD			Grand Total
	M	F	T	M	F	T	M	F	T	M	F	T	
Embu University College	1,465	1,084	2,549	0	0	0	37	28	65	24	11	35	**2,649**
Kirinyaga University College	696	430	1,126	0	0	0	0	0	0	0	0	0	**1,126**
Murang'a University College	966	477	1,443	0	0	0	2	5	7	0	0	0	**1,450**
Machakos University College	3,158	1,681	4,839	3	1	4	41	23	64	0	0	0	**4,907**
Rongo University College	2,941	1,961	4,902	0	0	0	89	66	155	41	23	64	**5,121**
Taita Taveta University College	1,538	562	2,100	0	0	0	9	10	19	0	0	0	**2,119**
The Co-Operative University College Of Kenya	856	951	1,807	0	0	0	0	0	0	0	0	0	**1,807**
Total	**11,620**	**7,146**	**18,766**	**3**	**1**	**4**	**178**	**132**	**310**	**65**	**34**	**99**	**19,179**

Annex 12: Enrolment in Private Chartered Universities

Name of University	Bachelor			Postgraduate Diploma			Masters			PhD			Grand Total
	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total	
University of Eastern Africa, Baraton	746	1,037	1,783	0	0	0	44	40	84	2	1	3	**1,870**

Catholic University of Eastern Africa	1,772	2,718	4,490	10	13	23	492	657	1,149	119	46	165	**5,827**
Daystar University	1,297	2,658	3,955	6	2	8	470	508	978	41	42	83	**5,024**
Scott Christian University	84	34	118	1	0	1	46	19	65	0	0	0	**184**
United States International University	2,326	2,491	4,817	0	0	0	474	764	1,238	47	64	111	**6,166**
St. Paul's University	1,950	2,497	4,447	0	0	0	182	126	308	6	4	10	**4,765**
Pan Africa Christian University	223	160	383	0	0	0	46	60	106	0	0	0	**489**
Africa International University	338	101	439	17	7	24	276	98	374	89	33	122	**959**
Kenya Highlands Evangelical University	32	39	71	0	0	0	0	0	0	0	0	0	**71**
Africa Nazarene University	1,038	1,765	2,803	0	0	0	191	257	448	13	3	16	**3,267**
Kenya Methodist University	3,196	3,876	7,072	3	0	3	322	318	640	55	49	104	**7,819**
Strathmore University	1,946	1,884	3,830	0	0	0	467	335	802	7	7	14	**4,646**
Kabarak University	1,338	1,286	2,624	0	0	0	37	33	70	121	112	233	**2,927**
Great Lakes University of Kisumu	461	550	1,011	0	0	0	87	81	168	4	3	7	**1,186**
KCA University	1,987	1,418	3,405	0	0	0	235	147	382	0	0	0	**3,787**
Mount Kenya University	10,919	8,457	19,376	188	75	263	1,182	704	1,886	22	15	37	**21,562**
Adventist University of Africa	0	0	0	0	0	0	518	19	537	92	0	92	**629**
Total	**29,653**	**30,971**	**60,624**	**225**	**97**	**322**	**5,069**	**4,166**	**9,235**	**618**	**379**	**997**	**71,178**

Annex 13: Enrolment in Private Universities Constituent Colleges

	Bachelor			Postgraduate Diploma			Masters			PhD			
Name of University	**M**	**F**	**T**	**M**	**F**	**T**	**M**	**F**	**T**	**M**	**F**	**T**	**Grand Total**
Hekima University College	139	0	139	0	0	0	32	20	52	0	0	0	**191**
Tangaza University College	558	239	797	0	0	0	6	2	8	0	0	0	**1,071**
Marist International University College	139	88	227	0	0	0	0	0	0	0	0	0	**227**
Regina Pacis University College	10	55	65	0	0	0	0	0	0	0	0	0	**65**
Uzima University College	189	126	315	0	0	0	0	0	0	0	0	0	**315**
Total	**1,035**	**508**	**1,543**	**0**	**0**	**0**	**38**	**22**	**60**	**0**	**0**	**0**	**1,603**

Annex 14: Enrolment in Private universities with Letters of Interim Authority

	Bachelor			Postgraduate Diploma			Masters			PhD			
Name of University	**M**	**F**	**T**	**M**	**F**	**T**	**M**	**F**	**T**	**M**	**F**	**Total**	**Grand Total**
Kiriri Women's University of Science And Technology	0	771	771	0	0	0	0	0	0	0	0	0	**771**
Aga Khan University	13	83	96	0	0	0	55	40	95	0	0	0	**191**
Gretsa University	246	168	414	0	0	0	0	0	0	0	0	0	**414**
Presbyterian University of East Africa	150	101	251	0	0	0	7	2	9	0	0	0	**260**
The East African University	298	139	437	0	0	0	0	0	0	0	0	0	**437**
Management University of Africa	506	551	1,057	47	55	102	0	0	0	21	4	25	**1,184**
Riara University	247	248	495	0	0	0	0	0	0	0	0	0	**495**

Pioneer International University	72	54	126	0	0	0	0	0	0	0	0	0	**126**
Umma University	73	51	124	0	0	0	0	0	0	0	0	0	**124**
International Leadership University	133	101	234	0	0	0	298	137	435	45	20	65	**734**
Zetech University	63	42	105	0	0	0	0	0	0	0	0	0	**105**
Total	**1,801**	**2,309**	**4,110**	**47**	**55**	**102**	**360**	**179**	**539**	**66**	**24**	**90**	**4,841**

Annex 15: Enrolment in Registered Private Universities

	Bachelor			Postgraduate Diploma			Masters			PhD			
Name of University	**M**	**F**	**T**	**M**	**F**	**T**	**M**	**F**	**T**	**M**	**F**	**T**	**Grand Total**
KAG – East University	175	76	251	0	0	0	38	18	56	0	0	0	307
Total	**175**	**76**	**251**	**0**	**0**	**0**	**38**	**18**	**56**	**0**	**0**	**0**	**307**

Annex 16: Post-graduate Diploma Programmes Students Ratio

Cluster	No. of Programme	No. of Students	Programmes: Students
Agriculture, Forestry and Fisheries	8	0	0
Architecture	0	0	0
Business and administration	11	120	1:11
Computing	3	16	1:5
Education (Arts)	16	633	1:40
Education (Science)	1	0	0
Engineering	2	79	1:40
Environment	2	4	1:2
Health and Welfare	7	75	1:11
Humanities and Arts	8	158	1:20
Journalism and Information	2	0	0
Law	0	0	0
Life Science and Physical Science	5	39	1:8
Manufacturing	0	0	0
Mathematics and Statistics	6	53	1:9
Security and Conflict Resolution	4	0	0
Services	1	0	0
Social and Behavioral Science	8	8	1:1
Teacher Training	9	151	1:17
Veterinary	0	0	0
Other	3	56	1:19
Total	96	1,392	1:15

Annex 17: Bachelor Programmes Students Ratio

Cluster	No. of Programme	No. of Students	Programmes: Students
Agriculture, Forestry and Fisheries	161	24,993	**1:155**
Architecture	17	4,877	**1:287**
Business and administration	197	95,053	**1:483**
Computing	111	20,925	**1:189**
Education (Arts)	107	74,176	**1:693**
Education (Science)	33	30,167	**1:914**
Engineering	96	20,648	**1:215**
Environment	57	8,620	**1:151**
Health and Welfare	136	25,950	**1:191**
Humanities and Arts	174	37,256	**1:214**
Journalism and Information	51	13,174	**1:258**
Law	12	6,767	**1:564**
Life Science and Physical Science	185	32,307	**1:175**
Manufacturing	9	2,292	**1:255**
Mathematics and Statistics	62	13,771	**1:222**
Security and Conflict Resolution	23	5,151	**1:224**
Services	55	8,727	**1:159**
Social and Behavioral Science	79	33,413	**1:423**
Teacher Training	40	5,664	**1:142**
Veterinary	11	1,048	**1:95**
Other	16	10,770	**1:673**
Total	**1,632**	**475,749**	**1:292**

Annex 18: Master Programmes Students Ratio

Cluster	No. of Programme	No. of Students	Programmes: Students
Agriculture, Forestry and Fisheries	123	1,675	**1:14**
Architecture	5	172	**1:34**
Business and administration	133	22,536	**1:169**
Computing	36	1,508	**1:42**
Education (Arts)	109	3,933	**1:36**
Education (Science)	15	241	**1:16**
Engineering	34	1,074	**1:32**
Environment	50	946	**1:19**
Health and Welfare	122	4,221	**1:35**
Humanities and Arts	205	7,949	**1:39**
Journalism and Information	21	1,208	**1:58**

Law	1	394	**1:394**
Life Science and Physical Science	122	1,884	**1:15**
Manufacturing	1	1	**1:1**
Mathematics and Statistics	46	779	**1:17**
Security and Conflict Resolution	16	708	**1:44**
Services	10	554	**1:55**
Social and Behavioral Science	66	4,379	**1:66**
Teacher Training	29	843	**1:29**
Veterinary	12	59	**1:5**
Other	6	397	**1:66**
Total	**1,162**	**55,461**	**1:48**

Annex 19: Doctorate Programmes Students Ratio

Cluster	No. of Programme	Enrolment	Programmes: Students
Agriculture, Forestry and Fisheries	71	248	1:3
Architecture	4	8	1:2
Business and administration	44	2,514	1:57
Computing	13	201	1:15
Education (Arts)	55	626	1:11
Education (Science)	7	24	1:3
Engineering	13	71	1:5
Environment	25	273	1:11
Health and Welfare	39	332	1:9
Humanities and Arts	88	776	1:9
Journalism and Information	11	241	1:22
Law	0	0	0
Life Science and Physical Science	53	339	1:6
Manufacturing	1	0	0
Mathematics and Statistics	26	231	1:9
Security and Conflict Resolution	7	31	1:4
Services	5	60	1:12
Social and Behavioral Science	24	573	1:24
Teacher Training	16	287	1:18
Veterinary	9	41	1:5
Other	7	271	1:39
Total	**518**	**7,147**	**1:14**

Annex 20: Public Chartered Universities staffing by Status and Gender

University	Professor		Senior lecturer		Lecturer		Assistant Lecturer		Graduate Assistant		Total		Total
	M	F	M	F	M	F	M	F	M	F	M	F	
University of Nairobi	434	75	380	109	609	223	176	76	181	160	1780	643	**2,423**
Moi University	112	17	114	56	241	117	98	66	29	22	594	278	**872**
Kenyatta University	77	22	148	71	571	305	385	220	2	2	1183	620	**1,803**
Egerton University	87	18	78	31	194	65	81	47	15	19	455	180	**635**
Jommo Kenyatta University of Agriculture & Technology	78	21	105	20	166	57	165	62	56	39	570	199	**769**
Maseno University	49	9	42	10	106	40	101	51	0	0	298	110	**408**
Masinde Muliro University of Science & Technology	25	3	25	9	71	36	34	10	5	5	160	63	**223**
Dedan Kimathi University of Technology	16	0	10	4	35	8	226	77	11	0	298	89	**387**
Chuka Universtity	11	1	15	11	52	31	66	47	11	9	155	99	**254**
Technical University of Kenya	26	5	37	6	91	94	80	69	36	21	270	195	**465**
Technical University of Mombasa	4	0	8	1	26	6	81	25	62	16	181	48	**229**
Pwani University	16	3	13	9	29	15	64	19	5	3	127	49	**176**
Kisii University	12	0	21	6	67	24	69	42	7	3	176	75	**251**
University of Eldoret	42	9	32	11	84	48	49	25	13	4	220	97	**317**
Maasai Mara University	12	3	6	4	71	20	252	140	0	0	341	167	**508**
Jaramogi Oginga Odinga University of Science & Technology	16	5	19	1	36	11	29	14	7	0	107	31	**138**
Laikipia University	5	1	11	2	39	23	10	7	0	0	65	33	**98**
South Eastern Kenya	10	2	12	0	25	17	36	29	3	13	86	61	**147**
Meru University	9	0	6	1	12	1	49	20	2	2	78	24	**102**
Multimedia University	5	0	7	4	42	14	23	9	2	2	79	29	**108**
Univesity of Kabianga	14	1	10	3	55	19	49	38	12	7	140	68	**208**
Karatina University	7	2	8	2	22	26	45	48	4	3	86	81	**167**
Kibabii University	17	0	35	8	77	11	123	84	0	0	252	103	**355**
Total	**1,084**	**197**	**1,142**	**379**	**2,721**	**1,211**	**2,291**	**1,225**	**463**	**330**	**7,701**	**3,342**	**11,043**

Annex 21: Public Constituent Colleges Staffing by Status and Gender

University	Professor		Senior lecturer		Lecturer		Assistant Lecturer		Graduate Assistant		Total		Total
	M	F	M	F	M	F	M	F	M	F	M	F	
Embu University College	5	2	7	1	10	5	12	8	0	0	34	16	**50**
Kirinyaga University College	1	2	0	0	2	2	16	14	17	14	36	32	**68**
Murang'a University College	3	0	2	0	5	1	15	7	8	4	33	12	**45**
Machakos University College	3	0	7	0	13	7	85	40	13	21	121	68	**189**
Rongo University College	20	3	6	2	9	6	25	10	12	3	72	24	**96**
Taita Taveta Univereity College	4	1	5	1	10	0	24	12	9	3	52	17	**69**
Co-operative University College	8	2	3	0	62	37	29	5	4	1	106	45	**151**
Total	**44**	**10**	**30**	**4**	**111**	**58**	**206**	**96**	**63**	**46**	**448**	**213**	**668**

Annex 22: Private Chartered Universities staffing by Status and Gender

University	Professor		Senior lecturer		Lecturer		Assistant Lecturer		Graduate Assistant		Total		Total
	M	F	M	F	M	F	M	F	M	F	M	F	
University of Eastern Africa, Baraton	8	2	7	5	37	17	49	41	27	31	128	96	**224**
Catholic University of Eastern Africa	5	3	14	4	43	20	21	8	0	0	83	35	**118**
Scott Theological College	1	0	5	0	24	2	19	14	0	0	49	16	**65**
Daystar University	6	2	18	14	22	33	4	5	0	0	50	54	**104**
United States International University	29	6	55	31	79	45	0	0	0	0	163	82	**245**
African Nazarene University	3	3	7	5	117	56	0	0	2	0	129	64	**193**
St' Pauls University	3	4	18	8	229	164	8	2	0	0	258	178	**436**
Pan Africa Christian University	4	4	7	4	7	2	15	14	1	0	34	24	**58**
Strathmore University	7	3	15	8	22	12	91	80	12	13	147	116	**263**
Kabarak University	5	0	7	5	31	11	19	12	2	0	64	28	**92**
KCA University	7	0	16	1	111	48	73	36	1	2	208	87	**295**
Mount Kenya University	19	1	24	7	154	73	223	202	0	0	420	283	**703**
Great Lakes University	9	2	5	1	56	46	18	15	13	6	101	70	**171**
Africa International University	10	0	9	3	6	11	52	0	0	2	77	16	**93**
Adventist University of Africa	27	6	20	1	0	1	0	0	0	0	47	8	**55**

Kenya Highlands Evangelical University	0	0	1	1	2	0	11	10	0	0	14	11	**25**
Total	**143**	**36**	**228**	**98**	**940**	**541**	**603**	**439**	**58**	**54**	**1,972**	**1,168**	**3,140**

Annex 23: Private Constituent Colleges Staffing by Status and Gender

University	Professor		Senior lecturer		Lecturer		Assistant Lecturer		Graduate Assistant		Total		Total
	M	F	M	F	M	F	M	F	M	F	M	F	
Hekima University College	8	0	16	0	8	1	8	0	0	0	40	1	**41**
Tangaza University College	13	3	9	6	25	7	25	19	0	0	72	35	**107**
Regina Pacis University College	1	1	0	0	6	12	6	0	0	0	13	13	**26**
Uzima University College	4	0	4	1	18	13	18	2	0	0	44	16	**60**
Marist University College	1	0	2	1	7	2	7	9	0	0	17	12	**29**
Total	**27**	**4**	**31**	**8**	**64**	**35**	**64**	**30**	**0**	**0**	**186**	**77**	**263**

Annex 24: Universities with Letters of Interim Authority Staffing by Status and Gender

University	Professor		Senior lecturer		Lecturer		Assistant Lecturer		Graduate Assistant		Total		Total
	M	F	M	F	M	F	M	F	M	F	M	F	
Presbyterian University of Africa	0	1	9	8	11	12	0	0	0	0	20	21	**41**
Riara University	3	3	5	4	56	55	5	0	0	0	69	62	**131**
The East African University	17	6	4	3	4	1	16	6	7	6	48	22	**70**
Management University of Africa	4	0	14	4	32	24	0	4	2	4	52	36	**88**
Umma University	1	0	3	0	51	5	22	3	0	0	77	8	**85**
Zetech University	1	0	0	1	0	0	36	13	0	0	37	14	**51**
Kiriri Univesity	0	0	3	0	5	2	9	5	0	5	17	12	**29**
Aga Khan	18	2	25	8	43	34	0	2	0	0	86	46	**132**
Pioneer	6	1	0	0	17	13	0	0	0	0	23	14	**37**
International Leadership University	12	1	4	3	35	25	7	5	0	0	58	34	**92**
KAG	30	4	3	1	1	0	30	17	2	0	66	22	**88**
Total	**92**	**18**	**70**	**32**	**255**	**171**	**125**	**55**	**11**	**15**	**553**	**291**	**844**

Annex 25: Public Chartered Universities staffing by Qualification and Gender

University	PhD		Masters		Bachelors		Diploma		Total		Total
	M	F	M	F	M	F	M	F	M	F	
University of Nairobi	954	217	717	255	49	23	32	1	1752	496	**2,248**

Moi University	187	63	371	197	59	36	0	0	617	296	**913**
Kenyatta University	469	301	499	380	31	15	68	36	1067	732	**1,799**
Egerton University	186	61	242	98	61	24	77	15	566	198	**764**
Jommo Kenyatta University of Agriculture & Technology	246	76	244	90	71	46	0	0	561	212	**773**
Maseno University	137	44	152	74	29	10	45	16	363	144	**507**
Masinde Murilo University of Science & Technology	109	27	151	72	9	8	20	7	289	114	**403**
Dedan Kimathi University of Technology	33	5	78	22	25	10	21	7	157	44	**201**
Chuka Universtity	29	11	98	89	22	9	31	13	180	122	**302**
Technical University of Kenya	192	40	29	126	92	30	11	30	324	226	**550**
Technical University of Mombasa	37	7	68	22	85	26	0	0	190	55	**245**
Pwani University	55	18	69	24	13	0	0	5	137	47	**184**
Kisii University	57	16	106	54	17	5	4	1	184	76	**260**
University of Eldoret	109	44	91	45	35	16	24	6	259	111	**370**
Maasai Mara University	40	11	58	27	0	0	0	0	98	38	**136**
Jaramogi Oginga Odinga University of Science & Technology	62	15	34	15	1	0	5	0	102	30	**132**
Laikipia University	34	9	64	38	3	0	3	0	104	47	**151**
South Eastern Kenya	46	15	40	34	14	13	6	3	106	65	**171**
Meru University	32	4	157	71	27	4	4	0	220	79	**299**
Multimedia University	36	3	159	91	38	9	8	3	241	106	**347**
Univesity of Kabianga	86	8	180	65	12	8	16	9	294	90	**384**
Karatina University	35	28	46	50	4	4	2	0	87	82	**169**
Kibabii University	18	3	43	26	9	2	1	0	71	31	**102**
Total	**3,189**	**1,026**	**3,696**	**1,965**	**706**	**298**	**378**	**152**	**7,969**	**3,441**	**11,410**

Annex 26: Public Constituent Colleges staffing by Qualification and Gender

University	PhD		Masters		Bachelors		Diploma		Total		Total
	M	F	M	F	M	F	M	F	M	F	
Embu	20	8	10	8	2	0	1	2	33	18	**51**
Krinyaga	3	4	14	12	10	14	12	3	39	33	**72**
Murang'a	11	2	17	9	20	4	19	10	67	25	**92**
Machakos	16	6	25	18	9	14	3	7	53	45	**98**
Rongo	21	8	31	12	2	1	8	1	62	22	**84**

Taita Taveta	9	2	18	6	9	5	11	1	47	14	**61**
Co-operative	18	5	74	37	1	9	0	0	93	51	**144**
Total	**98**	**35**	**189**	**102**	**53**	**47**	**54**	**24**	**394**	**208**	**602**

Annex 27: Chartered Private Universities staffing by Qualification and Gender

University	PhD		Masters		Bachelors		Diploma		Total		Total
	M	F	M	F	M	F	M	F	M	F	
University of Eastern Africa, Baraton	19	16	81	53	29	27	2	1	131	97	**228**
Catholic University of Eastern Africa	63	27	83	42	0	0	0	0	146	69	**215**
Scott Theological College	15	0	32	9	4	0	8	0	59	9	**68**
Daystar University	27	15	30	36	0	0	0	1	57	52	**109**
United States International University	77	30	89	60	0	0	0	0	166	90	**256**
African Nazarene University	32	13	101	56	0	0	0	0	133	69	**202**
St' Paul's University	32	14	224	203	0	0	0	0	256	217	**473**
Pan Africa Christian University	18	14	22	11	1	0	0	0	41	25	**66**
Strathmore University	52	28	72	83	19	16	0	0	143	127	**270**
Kabarak University	16	9	49	20	0	0	2	0	67	29	**96**
KCA University	7	5	30	13	7	3	0	1	44	22	**66**
Mount Kenya University	211	81	233	110	23	17	0	0	467	208	**675**
Great Lakes University	14	3	77	40	13	5	22	6	126	54	**180**
Africa International University	26	4	44	7	0	0	0	0	70	11	**81**
Adventist University of Africa	51	0	0	8	0	1	0	0	51	9	**60**
Kenya Highlands Evangelical University	3	1	9	9	3	0	0	0	15	10	**25**
Total	**663**	**260**	**1,176**	**760**	**99**	**69**	**34**	**9**	**1,972**	**1,098**	**3,070**

Annex 28: Private Constituent Colleges staffing by Qualification and Gender

University	PhD		Masters		Bachelors		Diploma		Total		Total
	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	
Hekima	26	3	1	0	0	0	0	0	27	3	**30**
Tangaza	51	10	19	17	0	1	0	0	70	28	**98**
Marist	6	2	6	7	0	0	0	0	12	9	**21**
Regina PACIS	4	4	7	3	2	0	0	0	13	7	**20**
Uzima	6	1	17	14	1	2	2	0	26	17	**43**
Total	**93**	**20**	**50**	**41**	**3**	**3**	**2**	**0**	**148**	**64**	**212**

Annex 29: Universities with Letters of Interim Authority Staffing by Qualification and Gender

University	PhD		Masters		Bachelors		Diploma		Total		Total
	M	F	M	F	M	F	M	F	M	F	
Presbyterian University of Africa	6	4	56	44	2	2	0	0	64	50	**114**
Riara University	9	6	56	53	4	0	0	0	69	59	**128**
The East African University	20	3	19	6	0	0	0	0	39	9	**48**
Management University of Africa	22	7	34	25	1	2	0	0	57	34	**91**
Umma University	21	0	51	8	0	0	0	0	72	8	**80**
Zetech University	1	1	28	10	0	0	0	0	29	11	**40**
Kiriri Univesity	6	1	24	14	0	0	0	0	30	15	**45**
Aga Khan	8	3	97	54	27	13	0	0	132	70	**202**
Gretsa	3	0	14	11	10	13	0	0	27	24	**51**
Pioneer	4	1	25	16	6	5	3	0	38	22	**60**
International Leadership University	39	19	17	15	0	0	0	0	56	34	**90**
KAG	33	3	23	13	2	0	0	0	58	16	**74**
Total	**172**	**48**	**444**	**269**	**52**	**35**	**3**	**0**	**671**	**352**	**1,023**

Annex 30: Professors and Associate Professors in Private Universities

Clusters	Professors			Associate Professors			Total		
	M	F	T	M	F	T	M	F	T
Agriculture, Forestry and Fisheries	2	0	2	1	1	2	3	1	**4**
Architecture	0	0	0	0	0	0	0	0	**0**
Business and administration	13	1	14	23	11	34	36	12	**48**
Computing	5	0	5	11	6	17	16	6	**22**
Education (Arts)	10	4	14	9	9	18	19	13	**32**
Education (Science)	0	0	0	3	0	3	3	0	**3**
Engineering	1	0	1	0	0	0	1	0	**1**
Environment	1	0	1	1	0	1	2	0	**2**
Health and Welfare	19	4	23	15	4	19	34	8	**42**
Humanities and Arts	37	5	42	35	8	43	72	13	**85**
Journalism and Information	0	0	0	2	4	6	2	4	**6**
Law	1	1	2	0	2	2	1	3	**4**
Life Science and Physical Science	0	0	0	4	0	4	4	0	**4**
Manufacturing	0	0	0	0	0	0	0	0	**0**
Mathematics and Statistics	6	2	8	2	0	2	8	2	**10**

Security and Conflict Resolution	0	0	0	0	0	0	0	0	**0**
Services	2	0	2	1	0	1	3	0	**3**
Social and Behavioral Science	14	4	18	5	2	7	19	6	**25**
Teacher Training	0	0	0	0	0	0	0	0	**0**
Veterinary	0	0	0	1	0	1	1	0	**1**
Other	62	6	68	7	1	8	69	7	**76**
Totals	**173**	**27**	**200**	**120**	**48**	**168**	**293**	**75**	**368**

Annex 31: Lecturers in Private Universities

Clusters	Senior Lecturers			Lecturers			Assistant Lecturers			Total		
	M	F	T	M	F	T	M	F	T	M	F	T
Agriculture, Forestry and Fisheries	4	0	4	4	3	7	3	0	3	11	3	**14**
Architecture	0	0	0	0	0	0	0	0	0	0	0	**0**
Business and administration	157	35	192	584	203	787	232	135	367	973	373	**1,346**
Computing	45	13	58	194	59	253	86	35	121	325	107	**432**
Education (Arts)	18	13	31	124	60	184	110	102	212	252	175	**427**
Education (Science)	0	0	0	2	2	4	0	1	1	2	3	**5**
Engineering	1	0	1	0	0	0	5	1	6	6	1	**7**
Environment	2	1	3	7	2	9	4	0	4	13	3	**16**
Health and Welfare	50	19	69	126	113	239	77	75	152	253	207	**460**
Humanities and Arts	103	28	131	223	145	368	109	64	173	435	237	**672**
Journalism and Information	9	7	16	40	56	96	21	14	35	70	77	**147**
Law	5	2	7	56	32	88	35	24	59	96	58	**154**
Life Science and Physical Science	7	2	9	9	10	19	10	8	18	26	20	**46**
Manufacturing	0	0	0	0	0	0	0	0	0	0	0	**0**
Mathematics and Statistics	8	1	9	8	2	10	28	14	42	44	17	**61**
Security and Conflict Resolution	0	0	0	17	8	25	0	0	0	17	8	**25**
Services	0	0	0	2	1	3	8	6	14	10	7	**17**
Social and Behavioral Science	28	19	47	105	118	223	50	27	77	183	164	**347**
Teacher Training	1	0	1	1	2	3	0	0	0	2	2	**4**
Veterinary	0	0	0	2	0	2	4	3	7	6	3	**9**
Other	17	13	30	33	6	39	5	0	5	55	19	**74**
Total	**455**	**153**	**608**	**1,537**	**822**	**2,359**	**787**	**509**	**1,296**	**2,779**	**1,484**	**4,263**

Annex 32: Professors in Public Universities

Clusters	Professors			Associate Professors			Total		
	M	F	T	M	F	T	M	F	T
Agriculture, Forestry and Fisheries	56	11	67	84	23	107	140	34	**174**
Architecture	5	0	5	19	0	19	24	0	**24**
Business and Administration	21	1	22	29	5	34	50	6	**56**
Computing	13	0	13	11	0	11	24	0	**24**
Education (Arts)	32	4	36	35	6	41	67	10	**77**
Education (Science)	2	1	3	7	3	10	9	4	**13**
Engineering	33	1	34	49	0	49	82	1	**83**
Environment	12	1	13	19	1	20	31	2	**33**
Health and Welfare	82	12	94	102	29	131	184	41	**225**
Humanities and Arts	35	4	39	44	18	62	79	22	**101**
Journalism and Information	9	0	9	5	0	5	14	0	**14**
Law	5	1	6	15	0	15	20	1	**21**
Life Science and Physical Science	85	12	97	102	32	134	187	44	**231**
Manufacturing	5	0	5	5	0	5	10	0	**10**
Mathematics and Statistics	13	0	13	22	1	23	35	1	**36**
Security and Conflict Resolution	3	0	3	4	0	4	7	0	**7**
Services	5	0	5	3	1	4	8	1	**9**
Social and Behavioral Science	37	7	44	45	16	61	82	23	**105**
Teacher Training	11	2	13	7	2	9	18	4	**22**
Veterinary	21	0	21	30	3	33	51	3	**54**
Other	2	0	2	2	0	2	4	0	**4**
Total	**487**	**57**	**544**	**639**	**140**	**779**	**1,126**	**197**	**1,323**

Annex 33: Lecturers in Public Universities

Clusters	Senior Lecturers			Lecturers			Assistant Lecturers			Total		
	M	F	T	M	F	T	M	F	T	M	F	T
Agriculture, Forestry and Fisheries	75	19	94	148	68	216	52	23	75	275	110	**385**
Architecture	34	8	42	96	21	117	26	6	32	156	35	**191**
Business and administration	67	55	122	378	171	549	234	142	376	679	368	**1,047**
Computing	17	19	36	113	36	149	137	41	178	267	96	**363**
Education (Arts)	69	51	120	233	152	385	66	76	142	368	279	**647**
Education (Science)	15	7	22	33	14	47	19	14	33	67	35	**102**
Engineering	101	7	108	203	20	223	143	27	170	447	54	**501**
Environment	45	10	55	97	43	140	56	35	91	198	88	**286**
Health and Welfare	143	96	239	353	208	561	49	46	95	545	350	**895**
Humanities and Arts	90	62	152	240	112	352	92	74	166	422	248	**670**

Journalism and Information	16	17	33	54	34	88	34	17	51	104	68	**172**
Law	29	14	43	66	37	103	23	16	39	118	67	**185**
Life Science and Physical Science	139	49	188	303	155	458	134	64	198	576	268	**844**
Manufacturing	7	1	8	14	2	16	11	4	15	32	7	**39**
Mathematics and Statistics	32	3	35	91	25	116	80	26	106	203	54	**257**
Security and Conflict Resolution	9	5	14	19	9	28	26	6	32	54	20	**74**
Services	9	3	12	21	19	40	31	31	62	61	53	**114**
Social and Behavioral Science	84	41	125	159	77	236	45	23	68	288	141	**429**
Teacher Training	16	11	27	28	14	42	49	43	92	93	68	**161**
Veterinary	32	4	36	45	11	56	3	1	4	80	16	**96**
Other	3	14	17	9	1	10	1	1	2	13	16	**29**
Total	**1,032**	**496**	**1,528**	**2,703**	**1,229**	**3,932**	**1,311**	**716**	**2,027**	**5,046**	**2,441**	**7,487**

Annex 34: Post-graduate Diploma Graduates per Cluster in Private Chartered Universities

Clusters	2012		2013		2014		2015		Total
	M	F	M	F	M	F	M	F	
Agriculture, Forestry	0	0	0	0	0	0	0	0	**0**
Architecture	0	0	0	0	0	0	0	0	**0**
Business and administration	0	0	0	0	0	1	7	2	**10**
Computing	0	1	1	0	0	0	0	0	**2**
Education (Arts)	37	20	32	8	43	24	93	43	**300**
Education (Science)	0	0	0	0	0	0	0	0	**0**
Engineering	0	0	0	0	0	0	0	0	**0**
Environment	0	0	0	0	0	0	0	0	**0**
Health and Welfare	0	0	0	0	0	0	0	0	**0**
Humanities and Arts	18	9	19	7	19	3	5	4	**84**
Journalism and Information	0	0	0	0	0	0	0	0	**0**
Law	0	0	0	0	0	0	0	0	**0**
Life Science and Physical Science	0	0	0	0	0	0	0	0	**0**
Manufacturing	0	0	0	0	0	0	0	0	**0**
Mathematics and Statistics	0	0	0	0	0	0	4	2	**6**
Security and Conflict	0	0	3	6	2	4	0	0	**15**
Services	0	0	0	0	0	0	0	0	**0**
Social and Behavioral Science	0	0	0	0	0	0	0	0	**0**
Teacher Training	6	6	7	3	10	3	4	2	**41**
Veterinary	0	0	0	0	0	0	0	0	**0**
Other	0	0	2	1	0	1	0	0	**4**

Total	**61**	**36**	**64**	**25**	**74**	**36**	**113**	**53**	**462**

Annex 35: Post-graduate Diploma Graduates in Private Universities with LIA

Clusters	2012		2013		2014		2015		Total
	M	F	M	F	M	F	M	F	
Agriculture, Forestry and Fisheries	0	0	0	0	0	0	0	0	**0**
Architecture	0	0	0	0	0	0	0	0	**0**
Business and administration	2	9	46	71	44	52	58	75	**357**
Computing	3	1	43	17	35	10	23	10	**142**
Education (Arts)	0	0	1	0	3	2	73	102	**181**
Education (Science)	0	0	0	0	1	0	10	8	**19**
Engineering	0	0	0	0	0	0	0	0	**0**
Environment	0	0	0	0	0	0	0	0	**0**
Health and Welfare	0	0	0	0	0	0	0	0	**0**
Humanities and Arts	0	0	0	0	0	0	0	0	**0**
Journalism and Information	0	0	0	0	0	0	0	0	**0**
Law	0	0	0	0	0	0	0	0	**0**
Life Science and Physical Science	0	0	0	0	0	0	0	0	**0**
Manufacturing	0	0	0	0	0	0	0	0	**0**
Mathematics and Statistics	0	0	0	0	0	0	0	0	**0**
Security and Conflict Resolution	0	0	0	0	0	0	0	0	**0**
Services	0	0	0	0	0	0	0	0	**0**
Social and Behavioral Science	0	0	0	0	0	0	0	0	**0**
Teacher Training	0	0	0	0	0	0	0	0	**0**
Veterinary	0	0	0	0	0	0	0	0	**0**
Other	6	2	36	9	15	8	26	13	**115**
Total	**11**	**12**	**126**	**97**	**98**	**72**	**190**	**208**	**814**

Annex 36: Post-graduate Diploma Graduates in Public Chartered Universities

Clusters	2012		2013		2014		2015		Total
	M	F	M	F	M	F	M	F	
Agriculture, Forestry and Fisheries	0	0	2	9	44	19	23	12	**109**
Architecture	0	0	0	0	3	0	3	0	**6**
Business and administration	128	56	102	43	371	231	245	152	**1,328**
Computing	1	0	0	0	71	18	67	8	**165**
Education (Arts)	33	14	91	67	155	124	49	38	**571**

Education (Science)	0	0	29	6	63	24	0	0	**122**
Engineering	11	1	0	0	7	16	0	0	**35**
Environment	2	2	11	2	57	45	40	28	**187**
Health and Welfare	5	5	4	2	2	1	11	4	**34**
Humanities and Arts	1	2	5	3	22	12	25	13	**83**
Journalism and Information	1	2	0	0	3	6	0	0	**12**
Law	0	0	0	0	0	0	0	0	**0**
Life Science and Physical Science	44	84	19	19	115	86	45	28	**440**
Manufacturing	0	0	0	0	0	0	0	0	**0**
Mathematics and Statistics	0	1	2	2	32	9	0	2	**48**
Security and Conflict Resolution	0	0	0	0	10	0	0	0	**10**
Services	0	0	11	9	7	3	0	0	**30**
Social and Behavioral Science	1	1	0	0	124	136	0	0	**262**
Teacher Training	37	28	41	20	24	15	47	22	**234**
Veterinary	0	0	0	0	0	0	0	0	**0**
Other	0	0	0	0	0	0	0	0	**0**
Total	**264**	**196**	**317**	**182**	**1,110**	**745**	**555**	**307**	**3,676**

Annex 37: Bachelors Graduates in Private Chartered Universities

Clusters	2012		2013		2014		2015		Total
	M	F	M	F	M	F	M	F	
Agriculture, Forestry	35	15	34	16	40	24	44	22	**230**
Architecture	0	0	0	0	0	0	0	0	**0**
Business and administration	2,229	2,700	2,824	3,153	2,979	3,134	2,624	3,222	**22,865**
Computing	663	402	915	468	893	439	844	455	**5,079**
Education (Arts)	433	703	1,288	2,181	1,440	2,040	2,454	2,988	**13,527**
Education (Science)	232	151	308	203	383	285	696	347	**2,605**
Engineering	5	2	11	4	15	0	0	0	**37**
Environment	7	15	15	17	12	25	6	9	**106**
Health and Welfare	247	218	510	446	585	586	635	870	**4,097**
Humanities and Arts	220	252	308	302	335	368	363	296	**2,444**
Journalism and Information	144	353	113	302	124	332	183	315	**1,866**
Law	99	106	147	232	275	367	328	284	**1,838**
Life Science and Physical Science	4	5	6	6	7	15	8	20	**71**
Manufacturing	0	0	0	0	0	0	0	0	**0**
Mathematics and Statistics	3	5	1	3	30	38	35	47	**162**
Security and Conflict Resolution	0	0	9	4	5	13	87	72	**190**

Services	5	29	8	19	2	17	18	30	**128**
Social and Behavioral Science	180	342	177	389	183	452	222	443	**2,388**
Teacher Training	212	486	187	219	164	430	127	236	**2,061**
Veterinary	0	0	0	0	0	0	0	0	**0**
Other	277	330	244	324	242	299	267	387	**2,370**
Total	**4,995**	**6,114**	**7,105**	**8,288**	**7,714**	**8,864**	**8,941**	**10,043**	**62,064**

Annex 38: Bachelors Graduates in Private Universities Constituent Colleges

Clusters	2012		2013		2014		2015		Total
	M	F	M	F	M	F	M	F	
Agriculture, Forestry and Fisheries	0	0	0	0	0	0	0	0	**0**
Architecture	0	0	0	0	0	0	0	0	**0**
Business and administration	0	0	0	0	0	0	0	0	**0**
Computing	0	0	0	0	0	0	0	0	**0**
Education (Arts)	0	0	0	0	0	0	0	0	**0**
Education (Science)	0	0	0	0	0	0	0	0	**0**
Engineering	0	0	0	0	0	0	0	0	**0**
Environment	0	0	0	0	0	0	0	0	**0**
Health and Welfare	0	0	0	0	4	18	33	70	**125**
Humanities and Arts	105	7	127	44	112	28	125	24	**572**
Journalism and Information	10	14	8	15	6	14	5	20	**92**
Law	2	0	0	0	0	0	0	0	**2**
Life Science and Physical Science	0	0	0	0	0	0	0	0	**0**
Manufacturing	0	0	0	0	0	0	0	0	**0**
Mathematics and Statistics	0	0	0	0	0	0	0	0	**0**
Security and Conflict Resolution	0	0	0	0	0	0	0	0	**0**
Services	0	0	0	0	0	0	0	0	**0**
Social and Behavioral Science	2	0	0	1	7	7	1	5	**23**
Teacher Training	0	0	0	0	0	0	0	0	**0**
Veterinary	0	0	0	0	0	0	0	0	**0**
Other	46	0	34	0	50	0	33	0	**163**
Total	**165**	**21**	**169**	**60**	**179**	**67**	**197**	**119**	**977**

Annex 39: Bachelors Graduates in Private Universities with LIA

Clusters	2012		2013		2014		2015		Total
	M	F	M	F	M	F	M	F	

Agriculture, Forestry and Fisheries	0	0	0	0	0	0	0	0	**0**
Architecture	0	0	0	0	0	0	0	0	**0**
Business and administration	7	36	5	8	32	32	32	16	**168**
Computing	3	9	2	0	10	5	4	1	**34**
Education (Arts)	0	0	4	4	4	5	3	3	**23**
Education (Science)	0	0	0	0	0	0	0	0	**0**
Engineering	0	0	0	0	0	0	0	0	**0**
Environment	0	0	0	0	0	0	0	0	**0**
Health and Welfare	4	25	14	16	4	23	9	30	**125**
Humanities and Arts	0	0	6	4	14	13	8	9	**54**
Journalism and Information	0	0	0	0	0	0	0	0	**0**
Law	0	0	0	0	0	0	0	0	**0**
Life Science and Physical Science	0	0	0	0	0	0	0	0	**0**
Manufacturing	0	0	0	0	0	0	0	0	**0**
Mathematics and Statistics	0	7	0	0	0	0	0	0	**7**
Security and Conflict Resolution	0	0	0	0	0	0	0	0	**0**
Services	8	6	9	7	6	13	9	17	**75**
Social and Behavioral Science	0	0	0	0	0	0	0	0	**0**
Teacher Training	0	0	0	0	0	0	0	0	**0**
Veterinary	0	0	0	0	0	0	0	0	**0**
Other	0	0	0	0	0	0	0	0	**0**
Total	**22**	**83**	**40**	**39**	**70**	**91**	**65**	**76**	**486**

Annex 40: Bachelors Graduates in Registered Private Universities

Clusters	2012		2013		2014		2015		Total
	M	F	M	F	M	F	M	F	
Agriculture, Forestry and Fisheries	0	0	0	0	0	0	0	0	**0**
Architecture	0	0	0	0	0	0	0	0	**0**
Business and administration	0	0	0	0	0	0	0	0	**0**
Computing	0	0	0	0	0	0	0	0	**0**
Education (Arts)	0	0	0	0	0	0	0	0	**0**
Education (Science)	0	0	0	0	0	0	0	0	**0**
Engineering	0	0	0	0	0	0	0	0	**0**
Environment	0	0	0	0	0	0	0	0	**0**
Health and Welfare	0	0	0	0	0	0	0	0	**0**
Humanities and Arts	0	0	0	0	0	0	0	0	**0**
Journalism and Information	0	0	0	0	0	0	0	0	**0**

Law	0	0	0	0	0	0	0	0	**0**
Life Science and Physical Science	0	0	0	0	0	0	0	0	**0**
Manufacturing	0	0	0	0	0	0	0	0	**0**
Mathematics and Statistics	0	0	0	0	0	0	0	0	**0**
Security and Conflict Resolution	0	0	0	0	0	0	0	0	**0**
Services	0	0	0	0	0	0	0	0	**0**
Social and Behavioral Science	0	0	0	0	0	0	0	0	**0**
Teacher Training	0	0	0	0	0	0	0	0	**0**
Veterinary	0	0	0	0	0	0	0	0	**0**
Other	20	5	41	9	68	12	48	9	**212**
Total	**20**	**5**	**41**	**9**	**68**	**12**	**48**	**9**	**212**

Annex 41: Bachelors Graduates in Public Chartered Universities

Clusters	2012		2013		2014		2015		Total
	M	F	M	F	M	F	M	F	
Agriculture, Forestry	256	141	620	323	829	511	1,206	796	**4,682**
Architecture	74	31	81	36	222	78	467	166	**1,155**
Business and administration	3,033	2,248	3,617	2,778	5,153	3,926	5,100	3,756	**29,611**
Computing	731	315	761	258	1,060	349	1,048	414	**4,936**
Education (Arts)	2,220	1,883	2,084	1,951	3,047	2,831	3,349	2,980	**20,345**
Education (Science)	774	415	772	556	1,023	482	1,262	682	**5,966**
Engineering	968	333	1,106	205	2,085	410	1,568	341	**7,016**
Environment	428	148	297	219	346	283	586	363	**2,670**
Health and Welfare	392	330	784	635	1,096	993	1,597	1,491	**7,318**
Humanities and Arts	842	629	1,208	1,184	1,548	1,557	2,345	2,765	**12,078**
Journalism and Information	209	148	279	295	597	513	428	598	**3,067**
Law	199	198	287	311	775	588	357	448	**3,163**
Life Science and Physical Science	574	361	839	488	1,018	606	1,662	999	**6,547**
Manufacturing	63	11	74	15	46	13	38	19	**279**
Mathematics and Statistics	329	177	382	242	532	283	816	412	**3,173**
Security and Conflict Resolution	159	68	124	75	536	274	470	142	**1,848**
Services	96	143	158	128	182	214	261	348	**1,530**
Social and Behavioral Science	543	345	296	238	515	509	665	500	**3,611**
Teacher Training	76	75	109	145	102	202	218	261	**1,188**

Veterinary	0	0	0	0	43	18	64	20	**145**
Other	0	0	0	0	0	0	0	0	**0**
Total	**11,966**	**7,999**	**13,878**	**10,082**	**20,755**	**14,640**	**23,507**	**17,501**	**120,328**

Annex 42: Masters Graduates in Private Chartered Universities

Clusters	2012		2013		2014		2015		Total
	M	F	M	F	M	F	M	F	
Agriculture, Forestry and Fisheries	30	15	51	23	18	9	13	7	**166**
Architecture	0	0	0	0	0	0	0	0	**0**
Business and administration	469	523	649	695	595	620	557	470	**4,578**
Computing	43	16	92	28	88	25	66	25	**383**
Education (Arts)	73	67	119	133	107	100	166	161	**926**
Education (Science)	0	0	0	0	0	0	0	0	**0**
Engineering	0	0	0	0	0	0	0	0	**0**
Environment	0	0	0	0	0	0	0	0	**0**
Health and Welfare	0	5	35	23	39	44	47	59	**252**
Humanities and Arts	50	24	188	55	150	78	191	72	**808**
Journalism and Information	12	18	8	20	15	20	1	9	**103**
Law	7	1	0	0	0	0	0	0	**8**
Life Science and Physical Science	0	0	0	0	0	0	0	0	**0**
Manufacturing	0	0	0	0	0	0	0	0	**0**
Mathematics and Statistics	4	2	4	7	4	5	4	4	**34**
Security and Conflict Resolution	0	0	0	0	0	0	3	1	**4**
Services	0	0	0	0	0	0	0	0	**0**
Social and Behavioral Science	67	146	73	129	67	140	46	103	**771**
Teacher Training	15	30	18	26	25	31	22	34	**201**
Veterinary	0	0	0	0	0	0	0	0	**0**
Other	33	25	44	31	29	16	29	43	**250**
Total	**803**	**872**	**1,281**	**1,170**	**1,137**	**1,088**	**1,145**	**988**	**8,484**

Annex 43: Masters Graduates in Private Constituent Universities Colleges

Clusters	2012		2013		2014		2015		Total
	M	F	M	F	M	F	M	F	
Agriculture, Forestry and Fisheries	0	0	0	0	0	0	0	0	**0**
Architecture	0	0	0	0	0	0	0	0	**0**
Business and administration	0	0	0	0	0	0	0	0	**0**

Computing	0	0	0	0	0	0	0	0	**0**
Education (Arts)	0	0	9	2	0	3	0	1	**15**
Education (Science)	0	0	0	0	0	0	0	0	**0**
Engineering	0	0	0	0	0	0	0	0	**0**
Environment	0	0	0	0	0	0	0	0	**0**
Health and Welfare	0	0	0	0	0	0	0	0	**0**
Humanities and Arts	12	3	8	6	7	2	0	0	**38**
Journalism and Information	0	0	0	0	0	0	3	0	**3**
Law	0	0	0	0	0	0	0	0	**0**
Life Science and Physical Science	0	0	0	0	0	0	0	0	**0**
Manufacturing	0	0	0	0	0	0	0	0	**0**
Mathematics and Statistics	0	0	0	0	0	0	0	0	**0**
Security and Conflict Resolution	0	0	0	0	0	0	0	0	**0**
Services	0	0	0	0	0	0	0	0	**0**
Social and Behavioral Science	0	0	19	34	0	0	3	0	**56**
Teacher Training	0	0	0	0	0	0	0	0	**0**
Veterinary	0	0	0	0	0	0	0	0	**0**
Other	8	16	12	12	6	5	4	0	**63**
Total	**20**	**19**	**48**	**54**	**13**	**10**	**10**	**1**	**175**

Annex 44: Masters Graduates in Private Universities with LIA

Clusters	2012		2013		2014		2015		Total
	M	F	M	F	M	F	M	F	
Agriculture, Forestry and Fisheries	0	0	0	0	0	0	0	0	**0**
Architecture	0	0	0	0	0	0	0	0	**0**
Business and administration	0	0	0	0	0	0	0	0	**0**
Computing	0	0	0	0	0	0	0	0	**0**
Education (Arts)	0	0	0	0	0	0	0	0	**0**
Education (Science)	0	0	0	0	0	0	0	0	**0**
Engineering	0	0	0	0	0	0	0	0	**0**
Environment	0	0	0	0	0	0	0	0	**0**
Health and Welfare	10	8	11	4	9	7	17	4	**70**
Humanities and Arts	5	2	24	5	21	10	18	5	**90**
Journalism and Information	0	0	0	0	0	0	0	0	**0**
Law	0	0	0	0	0	0	0	0	**0**
Life Science and Physical Science	0	0	0	0	0	0	0	0	**0**
Manufacturing	0	0	0	0	0	0	0	0	**0**

Mathematics and Statistics	0	0	0	0	0	0	0	0	**0**
Security and Conflict Resolution	0	0	0	0	0	0	0	0	**0**
Services	0	0	0	0	0	0	0	0	**0**
Social and Behavioral Science	1	7	1	8	0	0	4	8	**29**
Teacher Training	0	0	0	0	0	0	0	0	**0**
Veterinary	0	0	0	0	0	0	0	0	**0**
Other	0	0	0	0	0	0	0	0	**0**
Total	**16**	**17**	**36**	**17**	**30**	**17**	**39**	**17**	**189**

Annex 45: Masters Graduates in Registered Universities

Clusters	2012		2013		2014		2015		Total
	M	F	M	F	M	F	M	F	
Agriculture, Forestry and Fisheries	0	0	0	0	0	0	0	0	**0**
Architecture	0	0	0	0	0	0	0	0	**0**
Business and administration	0	0	0	0	0	0	0	0	**0**
Computing	0	0	0	0	0	0	0	0	**0**
Education (Arts)	0	0	0	0	0	0	0	0	**0**
Education (Science)	0	0	0	0	0	0	0	0	**0**
Engineering	0	0	0	0	0	0	0	0	**0**
Environment	0	0	0	0	0	0	0	0	**0**
Health and Welfare	0	0	0	0	0	0	0	0	**0**
Humanities and Arts	0	0	0	0	0	0	0	0	**0**
Journalism and Information	0	0	0	0	0	0	0	0	**0**
Law	0	0	0	0	0	0	0	0	**0**
Life Science and Physical Science	0	0	0	0	0	0	0	0	**0**
Manufacturing	0	0	0	0	0	0	0	0	**0**
Mathematics and Statistics	0	0	0	0	0	0	0	0	**0**
Security and Conflict Resolution	0	0	0	0	0	0	0	0	**0**
Services	0	0	0	0	0	0	0	0	**0**
Social and Behavioral Science	0	0	0	0	0	0	0	0	**0**
Teacher Training	0	0	0	0	0	0	0	0	**0**
Veterinary	0	0	0	0	0	0	0	0	**0**
Other	8	1	10	1	12	0	8	5	**45**
Total	**8**	**1**	**10**	**1**	**12**	**0**	**8**	**5**	**45**

Annex 46: Masters Graduates in Public Chartered Universities

Clusters	2012		2013		2014		2015		Total
	M	F	M	F	M	F	M	F	
Agriculture, Forestry and Fisheries	51	39	96	59	84	46	83	58	**516**
Architecture	14	7	13	13	19	6	24	17	**113**
Business and administration	763	458	672	491	1,292	961	1,617	1,187	**7,441**
Computing	23	17	22	0	68	17	90	42	**279**
Education (Arts)	254	204	265	175	444	384	659	553	**2,938**
Education (Science)	3	5	5	5	4	2	7	4	**35**
Engineering	27	8	45	4	75	17	174	20	**370**
Environment	35	20	47	54	57	44	46	32	**335**
Health and Welfare	67	61	55	46	108	120	204	165	**826**
Humanities and Arts	111	72	128	96	196	218	342	320	**1,483**
Journalism and Information	9	11	11	12	38	42	40	55	**218**
Law	0	0	0	0	0	0	23	18	**41**
Life Science and Physical Science	103	60	147	80	142	85	177	117	**911**
Manufacturing	0	0	0	0	0	0	0	0	**0**
Mathematics and Statistics	26	7	17	26	107	35	67	36	**321**
Security and Conflict Resolution	8	2	10	4	15	3	6	4	**52**
Services	6	3	2	1	7	3	5	7	**34**
Social and Behavioral Science	39	30	17	17	115	123	36	28	**405**
Teacher Training	24	16	17	15	32	16	32	36	**188**
Veterinary	0	0	0	0	10	3	17	11	**41**
Other	0	0	0	0	2	1	8	3	**14**
Total	**1,563**	**1,020**	**1,569**	**1,098**	**2,815**	**2,126**	**3,657**	**2,713**	**16,561**

Annex 47: Masters Graduates in Public Universities Constituent Colleges

Clusters	2012		2013		2014		2015		Total
	M	F	M	F	M	F	M	F	
Agriculture, Forestry and Fisheries	0	0	0	0	0	0	0	0	**0**
Architecture	0	0	0	0	0	0	0	0	**0**
Business and administration	5	3	0	0	3	5	5	0	**21**
Computing	0	0	0	0	0	0	0	0	**0**
Education (Arts)	0	0	5	0	4	1	0	0	**10**
Education (Science)	0	0	0	0	0	0	0	0	**0**

Engineering	0	0	0	0	0	0	0	0	**0**
Environment	0	0	0	0	0	0	0	0	**0**
Health and Welfare	0	0	0	0	0	0	0	0	**0**
Humanities and Arts	0	0	0	0	8	1	0	0	**9**
Journalism and Information	0	0	0	0	0	0	1	2	**3**
Law	0	0	0	0	0	0	0	0	**0**
Life Science and Physical Science	0	0	0	0	0	0	0	0	**0**
Manufacturing	0	0	0	0	0	0	0	0	**0**
Mathematics and Statistics	0	0	0	0	0	0	0	0	**0**
Security and Conflict Resolution	0	0	0	0	0	0	0	0	**0**
Services	0	0	0	0	0	0	0	0	**0**
Social and Behavioral Science	0	0	0	0	0	0	0	0	**0**
Teacher Training	0	0	0	0	0	0	0	0	**0**
Veterinary	0	0	0	0	0	0	0	0	**0**
Other	0	0	0	0	0	0	0	0	**0**
Total	**5**	**3**	**5**	**0**	**15**	**7**	**6**	**2**	**43**

Annex 48: PhD Graduates in Private Chartered Universities

Clusters	2012		2013		2014		2015		Total
	M	F	M	F	M	F	M	F	
Agriculture, Forestry and Fisheries	0	0	0	0	0	0	0	0	**0**
Architecture	0	0	0	0	0	0	0	0	**0**
Business and administration	5	1	3	4	3	3	4	0	**23**
Computing	0	0	0	0	1	0	1	0	**2**
Education (Arts)	0	0	4	1	0	2	1	1	**9**
Education (Science)	0	0	0	0	0	0	0	0	**0**
Engineering	0	0	0	0	0	0	0	0	**0**
Environment	0	0	0	0	0	0	0	0	**0**
Health and Welfare	0	0	3	2	3	1	2	6	**17**
Humanities and Arts	8	1	7	0	13	5	16	3	**53**
Journalism and Information	0	0	0	0	0	1	1	0	**2**
Law	0	0	0	0	0	0	0	0	**0**
Life Science and Physical Science	0	0	0	0	0	0	0	0	**0**
Manufacturing	0	0	0	0	0	0	0	0	**0**
Mathematics and Statistics	0	0	0	1	0	1	0	0	**2**
Security and Conflict Resolution	0	0	0	0	0	0	0	0	**0**
Services	0	0	0	0	0	0	0	1	**1**
Social and Behavioral Science	0	0	0	0	0	0	0	0	**0**
Teacher Training	4	4	8	7	3	6	5	4	**41**

Veterinary	0	0	0	0	0	0	0	0	**0**
Other	0	0	0	0	0	0	3	4	**7**
Total	**17**	**6**	**25**	**15**	**23**	**19**	**33**	**19**	**157**

Annex 49: PhD Graduates in Private Universities with LIA

Clusters	2012		2013		2014		2015		Total
	M	F	M	F	M	F	M	F	
Agriculture, Forestry and Fisheries	0	0	0	0	0	0	0	0	**0**
Architecture	0	0	0	0	0	0	0	0	**0**
Business and administration	0	0	1	0	0	0	0	0	**1**
Computing	0	0	0	0	0	0	0	0	**0**
Education (Arts)	0	0	1	0	0	0	0	0	**1**
Education (Science)	0	0	0	0	0	0	0	0	**0**
Engineering	0	0	0	0	0	0	0	0	**0**
Environment	0	0	0	0	0	0	0	0	**0**
Health and Welfare	0	0	0	0	0	0	0	0	**0**
Humanities and Arts	0	0	0	0	0	0	0	0	**0**
Journalism and Information	0	0	0	0	0	0	0	0	**0**
Law	0	0	0	0	0	0	0	0	**0**
Life Science and Physical Science	0	0	0	0	0	0	0	0	**0**
Manufacturing	0	0	0	0	0	0	0	0	**0**
Mathematics and Statistics	0	0	0	0	0	0	0	0	**0**
Security and Conflict Resolution	0	0	0	0	0	0	0	0	**0**
Services	0	0	0	0	0	0	0	0	**0**
Social and Behavioral Science	0	0	0	0	0	0	0	0	**0**
Teacher Training	0	0	0	0	0	0	0	0	**0**
Veterinary	0	0	0	0	0	0	0	0	**0**
Other	0	0	0	0	0	0	0	0	**0**
Total	**0**	**0**	**2**	**0**	**0**	**0**	**0**	**0**	**2**

Annex 50: PhD Graduates in Public Chartered Universities

Clusters	2012		2013		2014		2015		Total
	M	F	M	F	M	F	M	F	
Agriculture, Forestry and Fisheries	7	4	9	6	12	6	17	13	**74**
Architecture	3	2	0	0	2	0	1	1	**9**
Business and administration	17	11	28	27	71	32	69	38	**293**
Computing	1	0	3	0	3	2	6	3	**18**

Education (Arts)	18	12	23	13	34	22	39	21	**182**
Education (Science)	1	0	1	2	2	0	4	0	**10**
Engineering	2	0	1	0	14	1	2	0	**20**
Environment	3	1	13	2	2	2	8	8	**39**
Health and Welfare	15	9	10	5	21	24	26	18	**128**
Humanities and Arts	14	6	11	10	32	17	36	21	**147**
Journalism and Information	0	0	1	0	2	1	7	2	**13**
Law	0	0	0	0	0	0	1	1	**2**
Life Science and Physical Science	16	5	23	8	19	13	25	15	**124**
Manufacturing	0	0	0	0	0	0	0	0	**0**
Mathematics and Statistics	6	0	2	3	11	3	7	1	**33**
Security and Conflict Resolution	5	2	5	5	6	5	0	0	**28**
Services	2	0	1	0	3	1	2	2	**11**
Social and Behavioral Science	7	5	7	4	3	7	5	6	**44**
Teacher Training	0	0	2	2	3	3	0	2	**12**
Veterinary	0	0	0	0	5	1	7	3	**16**
Other	0	0	0	0	0	0	0	0	**0**
Total	**117**	**57**	**140**	**87**	**245**	**140**	**262**	**155**	**1,203**

Annex 51: Bachelors Graduates in Public Universities Constituent Colleges

Clusters	2012		2013		2014		2015		Total
	M	F	M	F	M	F	M	F	
Agriculture, Forestry and Fisheries	0	0	0	0	0	0	0	0	**0**
Architecture	0	0	0	0	0	0	0	0	**0**
Business and administration	115	63	132	81	90	54	120	68	**723**
Computing	87	25	81	20	56	16	76	23	**384**
Education (Arts)	0	0	28	18	19	14	6	4	**89**
Education (Science)	0	0	0	0	0	0	0	0	**0**
Engineering	42	1	39	2	21	2	22	3	**132**
Environment	0	0	0	0	0	0	0	0	**0**
Health and Welfare	0	0	0	0	0	0	0	0	**0**
Humanities and Arts	0	0	0	0	3	0	0	0	**3**
Journalism and Information	0	0	0	0	0	0	0	0	**0**
Law	0	0	0	0	0	0	0	0	**0**
Life Science and Physical Science	0	0	0	0	0	0	0	0	**0**
Manufacturing	0	0	0	0	0	0	0	0	**0**
Mathematics and Statistics	0	0	0	0	0	0	0	0	**0**

Security and Conflict Resolution	0	0	0	0	0	0	0	0	**0**
Services	0	0	0	0	0	0	0	0	**0**
Social and Behavioral Science	0	0	0	0	0	0	0	0	**0**
Teacher Training	0	0	24	29	11	23	13	20	**120**
Veterinary	0	0	0	0	0	0	0	0	**0**
Other	0	0	0	0	0	0	0	0	**0**
Total	**244**	**89**	**304**	**150**	**200**	**109**	**237**	**118**	**1,451**

Annex 52: Public Chartered Universities Graduations

Name of University	No. of Bachelor degree graduates				No. of Master degree graduates				No. of PhD graduates				Total
	2011/2012	2012/2013	2013/2014	2014/2015	2011/2012	2012/2013	2013/2014	2014/2015	2011/2012	2012/2013	2013/2014	2014/2015	
University of Nairobi	0	0	4,916	2,932	0	0	2,007	867	0	0	74	43	10,839
Moi university	3,838	4,610	6,096	0	382	395	400	0	36	32	32	0	15,821
Kenyatta University	5,553	6,049	6,536	9,602	846	961	1,038	1,369	55	62	115	117	32,303
Egerton University	3,370	2,684	3,332	5,180	229	185	152	203	12	21	29	22	15,419
Jomo Kenyatta University of Agriculture and Technology	3,949	3,607	4,179	5,142	806	570	860	1,104	46	46	65	103	20,477
Maseno University	1,522	1,176	1,422	3,487	234	232	78	84	18	24	21	18	8,316
Masinde Muliro University of Science and Technology	1,399	1,913	2,395	0	83	94	76	0	7	16	19	0	6,002
Dedan Kimathi University of Technology	0	291	615	1,041	0	6	17	35	0	4	6	5	2,020
Chuka University	9	245	575	1,414	2	20	35	53	0	4	2	8	2,367
Technical University of Kenya	325	361	633	985	0	0	0	0	0	0	0	0	2,304
Technical University of Mombasa	0	0	0	0	0	0	0	0	0	0	0	0	0

Pwani University	0	0	0	0	0	0	0	1	0	0	0	0	1
Kisii University	0	969	1,450	2,432	0	72	91	131	0	0	0	0	5,145
University of Eldoret	0	1,370	1,191	0	0	105	66	0	0	18	13	0	2,763
Maasai Mara University	0	370	754	0	0	8	7	0	0	0	2	0	1,141
Jaramogi Oginga Odinga University of Science and Technology	0	0	257	554	0	0	36	85	0	0	7	17	956
Laikipia University	0	0	0	1,409	0	0	0	33	0	0	0	7	1,449
South Eastern Kenya University	0	0	0	0	0	0	14	31	0	0	0	0	45
Meru University of Science and Technology	0	139	292	524	0	0	15	17	0	0	0	0	987
Multi-media University of Kenya	0	0	170	1,035	0	0	0	0	0	0	0	0	1,205
University of Kabianga	0	0	0	0	0	0	0	26	0	0	0	0	26
Karatina University	0	176	362	0	0	19	18	0	0	0	0	0	575
Kibabii University	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	**19,965**	**23,960**	**35,175**	**35,737**	**2,582**	**2,667**	**4,910**	**4,039**	**174**	**227**	**385**	**340**	**130,161**

Annex 53: Public University Constituent Colleges Graduations

Name of University	No. of Bachelor degree graduates				No. of Master degree graduates				No. of PhD graduates				Total
	2011/2012	2012/2013	2013/2014	2014/2015	2011/2012	2012/2013	2013/2014	2014/2015	2011/2012	2012/2013	2013/2014	2014/2015	
Machakos University College	0	0	0	0	0	0	0	0	0	0	0	0	0
The Co-operative University College of Kenya	0	0	0	0	0	0	0	0	0	0	0	0	0
Embu Universi	0	0	0	0	0	0	0	0	0	0	0	0	0

ty College													
Kirinyaga University College	0	0	0	0	0	0	0	0	0	0	0	0	0
Rongo University College	0	135	109	76	0	5	17	8	0	0	0	0	350
Taita Taveta University College	333	319	200	279	8	0	5	0	0	0	0	0	1,144
Total	**333**	**454**	**309**	**355**	**8**	**5**	**22**	**8**	**0**	**0**	**0**	**0**	**1,494**

Annex 54: Private Chartered Universities Graduation Trends

Name of University	No. of Bachelor degree graduates				No. of Masters degree graduates				No. of PhD graduates				Total
	2011/2012	2012/2013	2013/2014	2014/2015	2011/2012	2012/2013	2013/2014	2014/2015	2011/2012	2012/2013	2013/2014	2014/2015	
Catholic University of Eastern Africa	1,386	1,751	1,437	1,218	209	169	202	122	16	22	23	19	6,574
Daystar University	1,104	886	814	780	223	257	191	95	0	0	1	1	4,352
Scott Christian University	36	28	29	18	2	4	6	9	0	0	0	0	132
United States International University	892	915	899	781	353	303	393	244	0	0	0	0	4,780
Africa Nazarene University	594	661	835	973	33	109	95	116	0	0	0	0	3,416
Kenya Methodist University	2,419	2,701	2,858	2,735	305	388	268	236	2	4	5	0	11,921
St. Paul's University	530	618	801	1,008	85	84	79	100	0	0	0	0	3,305
Pan Africa Christian University	46	63	69	74	11	17	31	35	0	0	0	0	346
Strathmore University	458	631	647	606	101	162	136	106	0	0	2	2	2,851

Kabarak University	353	622	886	0	25	27	35	0	4	5	0	0	1,957
Mount Kenya University	1,886	5,058	5,836	8,835	216	637	548	770	0	4	4	9	23,803
Africa International University	30	49	48	86	24	20	23	16	1	1	3	8	309
Kenya Highlands Evangelical University	33	35	46	41	0	0	0	0	0	0	0	0	155
Great Lakes University of Kisumu	20	82	232	434	0	43	23	52	0	4	4	6	900
KCA University	803	725	690	834	42	69	99	103	0	0	0	0	3,365
Adventist University of Africa	0	0	0	0	0	101	66	66	0	0	0	0	233
Total	**10,590**	**14,825**	**16,127**	**18,423**	**1,629**	**2,390**	**2,195**	**2,070**	**23**	**40**	**42**	**45**	**68,399**

Annex 55: Private university constituent Colleges Graduation Trends

Name of University	No. of Bachelor degree graduates				No. of Master degree graduates				No. of PhD graduates				Total
	2011/2012	2012/2013	2013/2014	2014/2015	2011/2012	2012/2013	2013/2014	2014/2015	2011/2012	2012/2013	2013/2014	2014/2015	
Hekima University College	46	34	50	33	24	24	11	4	0	0	0	0	**226**
Tangaza University College	140	195	174	229	0	0	0	7	0	0	0	0	**745**
Marist University College	0	0	0	0	0	0	0	0	0	0	0	0	**0**
Regina Pacis University College	0	0	22	15	0	0	0	0	0	0	0	0	**37**
Uzima University College	0	0	0	39	0	0	0	0	0	0	0	0	**39**
Total	186	229	246	316	24	24	11	11	0	0	0	0	1,047

Annex 56: Private Universities with LIA Graduation Trends

Name of University	No. of Bachelor degree graduates				No. of Master degree graduates				No. of PhD graduates				Total
	2011/2012	2012/2013	2013/2014	2014/2015	2011/2012	2012/2013	2013/2014	2014/2015	2011/2012	2012/2013	2013/2014	2014/2015	
Marist University College	0	0	0	0	0	0	0	0	0	0	0	0	0
Regina Pacis University College	0	0	22	15	0	0	0	0	0	0	0	0	37
Uzima University College	0	0	0	39	0	0	0	0	0	0	0	0	39
Kiriri Women's University of Science and Technology	43	0	18	0	0	0	0	0	0	0	0	0	61
Aga Khan University	29	30	27	39	18	15	16	21	0	0	0	0	195
GRETSA University	33	31	88	87	0	0	0	0	0	0	0	0	239
Presbyterian University of East Africa	0	0	0	0	0	0	0	0	0	0	0	0	0
The East African University	0	0	0	0	0	0	0	0	0	0	0	0	0
Management University of Africa	0	0	44	0	0	0	0	0	0	0	0	0	44

Riara University	0	0	0	0	0	0	0	0	0	0	0	0	0
Pioneer International University	0	0	0	0	0	0	0	0	0	0	0	0	0
UMMA University	0	0	0	0	0	0	0	0	0	0	0	0	0
International Leadership University	0	18	28	15	15	38	31	35	0	0	0	0	180
Zetech University	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	**105**	**79**	**227**	**195**	**33**	**53**	**47**	**56**	**0**	**0**	**0**	**0**	**795**

Annex 57: Private Registered University Graduation Trends

Name of University	No. of Bachelor degree graduates				No. of Master degree graduates				No. of PhD graduates				Total
	2011/2012	2012/2013	2013/2014	2014/2015	2011/2012	2012/2013	2013/2014	2014/2015	2011/2012	2012/2013	2013/2014	2014/2015	
KAG-EAST University	25	50	80	57	9	11	12	13	0	0	0	0	257

Annex 58: Academic Staff to Student Ratios as per University Category

Universities	Student Enrolment	Academic Staff by Qualification	Student : Staff Ratio
Public Universities	461,820	12,013	1:38
Private Universities	77,929	4,305	1:18
Total	**539,749**	**16,318**	**1:33**

Annex 59: Academic Staff to Student Ratios as per Qualification Level and University Category

Qualification	Public Chartered Universities			Private Chartered Universities		
	Student Enrolment	Teaching Staff by Qualification	Ratio	Student Enrolment	Teaching Staff by Qualification	Ratio
PhD	6,059	4,348	1:1.39	1,087	1,256	1:1
Master	45,571	5,953	1:8	9,890	2,740	1:4
Bachelor	410,190	1,712	1:240	66,952	309	1:217

Total	**461,820**	**12,013**	**1:38**	**77,929**	**4,305**	**1:33**

Annex 60: Academic Staff by Rank Student Ratio per Cluster

Clusters	Teaching Staff by Rank	No. of Students	Academic Staff by Rank : Student Ratio
Agriculture, Forestry and Fisheries	903	26,916	1:29.8
Architecture	231	5,057	1:21.8
Business and Administration	3,082	120,223	1:39.0
Computing	893	22,650	1:25.4
Education (Arts)	1,465	79,368	1:54.2
Education (Science)	152	30,432	1:200
Engineering	762	21,872	1:28.7
Environment	512	9,843	1:19.2
Health and Welfare	1,753	30,578	1:17.4
Humanities and Arts	1,635	46,139	1:28.2
Journalism and Information	360	14,623	1:40.6
Law	376	7,161	1:19.0
Life Science and Physical Science	1,515	34,569	1:22.8
Manufacturing	50	2,293	1:45.9
Mathematics and Statistics	515	14,834	1:28.8
Security and Conflict resolution	128	5,890	1:46.0
Services	196	9,341	1:47.8
Social & Behavioral Science	1,002	38,373	1:38.3
Teacher Training	127	6,945	1:54.7
Veterinary	202	1,148	1:5.7
Other	142	11,494	1:80.9
Total	16,001	**539,749**	**1:33.7**

Annex 61: How Clusters were created

S/No.	Programme Name	Course Clusters
1.	Arts	Psychology
		Arts
		Criminology and Security Studies
		Environmental Studies (Community Development)
		Community Development
		Disaster Risk Management and Sustainable Development
		History and International Studies
		Gender
		Sociology and Religion
		Geography
		English and Communication
		Language and Communication

		Social Work
		Developmental and Policy Studies
		Human Resource Management
		Development Studies
		Community Development and Environment
		Public Management and Development
		Criminology, Criminal Justice and Public Safety
		Political Science and Public Administration
		Sociology
		Gender and Development
		Counselling Psychology
		Public Administration
		Kiswahili
		Religious Studies
		Linguistic
		Literature
		History
		Translation and Interpretation
		Peace Education
		Criminology and Penology
		French
		International Relations and Diplomacy
		History and Archaeology
		Disaster Management
		Political Science
		Philosophy
		Sociology and Anthropology
		Geography and Natural Resource Management
		Conflict Resolution and Humanitarian Assistance
		Disaster Management and International Diplomacy
		Disaster Mitigation and Sustainable Development
		Disaster Preparedness and Environment Technology
		German
		Penology, Correction and Administration
		International Relations and Diplomacy
		Office Administration and Technology
		Anthropology
2.	Computing	Computer Science
		Computer Security and Forensics
		Software Engineering
		Computer Technology
		Business Computing
		Mathematics and Computer Science
		Informatics
		Applied Physics and Computer Science
3.	Agriculture, Livestock and Fisheries	Agribusiness Management
		Agricultural Economics
		Agricultural Education and Extension

		Agriculture
		Animal Science
		Food Science and Technology
		Horticulture
		Agricultural Economics
		Agriculture and Human Ecology Extension
		Aquatic Science
		Dairy Technology and Management
		Dry Land, Agriculture and Enterprise Development
		Animal Health Management
		Veterinary Medicine
		Range Management
		Soil Science
		Food Security
		Agribusiness Economics and Food Industry Management
		Agricultural Economics and Rural Development
		Animal Health, Production and Processing
		Environmental Horticulture and Landscaping Technology
		Fisheries and Aquaculture
		Agricultural Resource Economics and Management
		Crop Improvement and Protection
		Agriculture and Biotechnology
		Agricultural Economics
		Agronomy
		Soil Science
		Marine Biology and Fisheries
		Dryland Animal Science
		Agricultural Biotechnology
		Seed Science and Technology
		Animal Laboratory Science
4.	Architecture and Physical Planning	Spatial Planning
		Construction Management
		Geospatial Information Science and Remote Sensing
		Geo-Informatics
		Geo information Technology
		Biometry and Informatics
		Geomatics and Geospatial Information Systems
		Quantity Survey
		Landscape Architecture
		Architectural Technology
		Land Resource Planning and Management
		Urban and Regional Planning
		Built Environment
		Architecture
		Real Estate and Property Management
		Land Administration
		Design

		Planning
5.	Engineering and Processing	Civil Engineering
		Electrical and Electronic Engineering
		Water and Environmental Engineering
		Microprocessor Technology and Instrumentation
		Leather Technology
		Food Processing Technology
		Food Science and Technology
		Food Science and Management
		Mechanical Engineering
		Bio-Systems and Agricultural Engineering
		Mechatronic Engineering
		Wood Science and Industrial Processes
		Manufacturing Engineering and Technology
		Instrumentation and Control Engineering
		Agricultural and Biosystems Engineering
		Geomatics Engineering and Geospatial Information System
		Marine Engineering
		Telecommunication and Information Engineering
		Control and Instrumentation
		Mining and Mineral Processing Engineering
		Electronic and Computer Engineering
		Applied Bioengineering
		Petroleum Engineering
		Aerospace Engineering
		Mechanical and Manufacturing Engineering
		Biomedical Engineering
		Sugar Technology
		Electrical and Communication Engineering
		Mechanical and Industrial Engineering
		Civil and Structural Engineering
		Chemical and Process Engineering
		Industrial and Textile Engineering
		Electronics
		Geospatial Engineering
		Chemical Engineering
		Applied Physics (Electronics & Instrumentation)
		Medical Engineering
		Agricultural and Bio-Systems Engineering
		Leather Technology
		Environmental and Biosystems Engineering
		Mechanical and Production Engineering
	1. Business	Economics and Sociology
		Co-operative Management
		Sports Management
		Commerce
		Economics and Statistics
		Purchasing and Supplies Management
		Entrepreneurship and Small Business Management

		Finance and Investment Management
		Business Management/Administration
		Economics and History
		Economics
		Project Planning Management
		Entrepreneurship
		Financial Engineering
		Strategic Management
		Economics and Finance
		Business Studies
		Accountancy
		Business and Office Management
		Maritime Management
7.	Information Technology and Journalism	Communication and Media
8.	Tourism and Hospitality	Library and Information Studies
		Communication and Computer networks
		Information Communication Technology
		Communication and Computer Networks
		Business Information Systems
		Mass Communication
		Business Information Technology
		Journalism
		Innovation Technology Management
		Corporate Communication and Management
		Information Sciences
		Communication and Public Relations
		Business Information and Management
		Communication and Journalism
		Graphic, Communication and Advertising
		Media Science
		Film Animation
		Catering and Hotel Management
		Ecotourism and Hospitality Management
		Sustainable Tourism and Hospitality Management
		Event and Convention Management
		Recreation and Leisure Management
		Food Service and Hospitality Management
		Tourism Management
		Travel and Tours Operations Management
		Food Technology and Quality Assurance
9.	Health and Welfare	Nursing Science
		Food Nutrition and Dietetics
		Nutrition and Dietetics
		Exercise and Sport Science
		Medicine and Bachelor of Surgery
		Community Health and Development
		Public Health
		Pharmacy
		Medical Biochemistry
		Medical Microbiology
		Medical Laboratory Sciences
		Health Records and Informatics

		Clinical Medicine
		Physiotherapy
		Radiography
		Population Health
		Health Services Management
		Occupational Health and Safety
		Medical Biotechnology
		Pharmaceutical Sciences
		Global Health and Emporiatrics
		Midwifery
		Epidemiology and Biostatistics
		Dental Surgery
		Medical Psychology
10.	Mathematics and Statistics	Statistics
		Mathematics and Computer Science
		Biostatistics
		Mathematics and Computer Science
		Mathematics
		Mathematics and Computing
		Statistics and Programming
		Mathematics and Business Studies
		Mathematics and Economics
11.	Actuarial Sciences	Actuarial Science
12.	Education Arts	All education Arts
		Special Education
		Physical Education
13.	Education Science	All education science subjects
		Environmental Education
		Bachelor of Science with Education
14.	Biological and Physical Sciences	Biochemistry
		Science
		Biomedical Science and Technology
		Industrial Chemistry
		Biology
		Microbiology and Biotechnology
		Analytical Chemistry
		Genomic Sciences
		Biotechnology
		Microbiology
		Biochemistry and Molecular Biology
		Industrial Biotechnology
		Zoology
		Forensic Science
		Molecular and Cellular Biology
		Physics
		Chemistry
		Bio-Resources Management and Conservation
		Petroleum Chemistry
		Geophysical and Mineralogy
		Inorganic, Physical and Organic Options
		Geology
		Meteorology
		Entomology and Parasitology

		Ethnobotany
15.	Environment and Wildlife	Environmental Science
		Wildlife Enterprise Management
		Conservation Biology
		Waste Management
		Natural Resources Management
		Soil Environment and Land Use Management
		Integrated Forest Resources Management
		Management of Agro-Ecosystem and Environment
		Environmental Conservation and Natural Resources
		Water Resource Management
		Renewable Energy Technology and Management
		Water and Environment Management
		Environmental Health
		Environmental Studies and Community Development
		Environmental Planning and Management
		Coastal and Marine Resource Management
		Community Resource Management
		Renewable Energy and Biofuels Technology
		Renewable Energy
		Environmental Chemistry
		Natural Products
		Utilization and Sustainability of Arid Lands
		Wildlife Management
		Forestry
		Earth Science
		Climate Change and Development
		Hydrology and Water Resources Management
		Marine Resource Management
		Agroforestry and Rural Development
16.	Law	Law
17.	Creative Arts	Clothing Textile and Interior Design
		Fine Arts
		Drama and Theatre Studies
		Fashion Design and Textile Technology
		Music
		Fashion Design and Marketing
		Apparel and Fashion Technology
		Interior Design
		Theater Arts and Film Technology
		Fashion Design and Marketing
		Textiles, Apparel Design and Fashion Merchandising

Annex 62: University Classifications

Public Chartered Universities

1. University of Nairobi
2. Moi University
3. Kenyatta University
4. Egerton University
5. Jomo Kenyatta University of Agriculture and Technology
6. Maseno University
7. Masinde Muliro University of Science and Technology
8. Dedan Kimathi University of Technology
9. Chuka University
10. Technical University of Kenya
11. Technical University of Mombasa
12. Pwani University
13. Kisii University
14. University of Eldoret
15. Maasai Mara University
16. Jaramogi Oginga Odinga University of Science and Technology
17. Laikipia University
18. South Eastern Kenya University
19. Meru University of Science and Technology
20. Multimedia University of Kenya
21. University of Kabianga
22. Karatina University
23. Kibabii University
24. Machakos University College
25. Co-operative University College of Kenya
26. Embu University College
27. Kirinyaga University College
28. Rongo University College
29. Taita Taveta University College
30. Murang'a University College

Public University Constituent Colleges

1. Alupe University College
2. Kaimosi University College
3. Garissa University College
4. Tom Mboya College

Private Chartered Universities

1. University of Eastern Africa, Baraton
2. Catholic University of Eastern Africa
3. Daystar University
4. Scott Christian University
5. Africa Nazarene University
6. St. Paul's University
7. Pan African Christian University
8. Strathmore University
9. Kabarak University
10. Mount Kenya University
11. Africa International University
12. Kenya Highlands Evangelical University
13. Great Lakes University of Kisumu
14. KCA University
15. Adventist University of Africa
16. United States International University
17. Kenya Methodist University
18. KAG EAST University

Private University Constituent Colleges

1. Hekima University College
2. Tangaza University College
3. Marist International University College
4. Regina Pacis University College

5. Uzima University College

Private Universities with Letters of Interim Authority

1. Kiriri Women's University of Science and Technology
2. Aga Khan University
3. GRETSA University
4. Presbyterian University of East Africa
5. The East African University
6. Riara University
7. Management University of Africa
8. UMMA University
9. International Leadership University
10. Zetech University
11. Lukenya University College
12. Pioneer International University